

# The Boston Medical and Surgical Journal

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February 14, 1918

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## Original Articles.

### SUGGESTIONS ON THE CARE OF MENTAL CASES.\*

BY FREDERIC H. PACKARD, M.D., WAVERLEY, MASS.

I HAVE no theories to advance. My remarks are based on practical experience at this hospital.

Before coming to McLean Hospital I had the privilege of a service in one of our largest and best general hospitals, where I was associated with men of high standing in the medical profession and from whom I felt I had learned the best methods of treatment. I still believe that was so for the most part, but my experience here has shown me that their treatment of delirious cases could have been improved. My experience here has also taught me that there are many general practitioners who make the same mistakes. Hence I am led to take advantage of this occasion to make such suggestions.

In the general hospital a good many delirious conditions arose from various causes. These patients were usually segregated in two of the lower wards where, because of their predominance, they made a striking and lasting impression on me. Some were comparatively quiet, while others needed restraint. I never felt at that time that they were not well cared for. They were kept clean and were given such nourishment as they could be induced to take;

which, on the whole, however, was a very small amount, often but a few ounces in twenty-four hours and sometimes but a few spoonfuls. We were not especially concerned, perhaps, because in our mind the one important thing was to produce quiet and sleep. This we tried to do by, and only by, the use of sedative drugs. When the results were unsatisfactory, as they usually were, at the advice of the visiting staff we constantly increased the frequency and size of the doses and added to the variety of the drugs. Bromide, chloral, hyoscyamine, morphine and others were used, according to the fancy of the prescribing physician. We were attentive and persistent in our medication, and sooner or later, but always in a relatively short time, the patients became quieter and weaker and many of them died. We felt badly but accepted it as the inevitable.

Here at McLean Hospital I found a considerable number of similar patients, and when I observed the methods of treatment here it seemed as though the physician in charge was woefully lacking in therapeutic knowledge and might really benefit from my recent general hospital experience. The restlessness, activity and sleeplessness of the patients seemed of small concern to him and he apparently made no attempt to relieve them. No sedative drugs were prescribed. His chief and seemingly only interest was in whether their bowels had moved properly and whether they had taken a sufficient amount of nourishment, and I noticed that to him sufficient meant a considerable amount.

I can still see in my mind a frail, emaciated woman, her tongue thickly coated, sordes on her

\* Read at the Semiannual Meeting of the Middlesex South District Medical Society, held at McLean Hospital, October 10, 1917.

teeth, with thin and rapid pulse. She could not or would not eat. I was told to tube feed her at once. My suggestion that she was so weak that it might kill her was ignored. The stomach tube was passed, milk and eggs were poured down, although it seemed to me that her protesting struggles would use up what little life was left. She did not die, however, but lived to be fed again and again, and almost with each successive feeding, her pulse improved in rate and volume. She began to gain in strength and weight, sleep came and soon after her delirium disappeared and her complete recovery was rapid. I watched this transformation with much interest and no little surprise, and now for over fifteen years I have seen the same results accomplished many times by the same treatment. I recall only two cases in that time who have died. These were two men whose physical appearance indicated greater resistance than they had, for which reason tube feeding was delayed too long.

The history of this particular woman was somewhat as follows. She had called in her family physician because she felt tired and nervous and was unable to sleep well. The small doses of bromide prescribed at first, having little effect, were increased and continued until she began to have hallucinations of sight and hearing. She became difficult to manage and hard to keep in bed. More strenuous means seemed necessary and repeated doses of morphine were given. Meanwhile she had taken very little nourishment for a considerable time and practically nothing for a week preceding her admission to this hospital. I do not know just how serious her condition was when the family physician was summoned, but she came here with a typical drug delirium from which she recovered when the drugs were eliminated from her system and her general physical condition had been built up by food. It is very probable that if her family physician had prescribed fresh air and moderate exercise, and had insisted upon and depended upon a liberal amount of nourishment for his sedatives, the patient would have been spared the delirium and the necessity of hospital treatment.

I am sorry to say that this is not an isolated case, but a type of which we get many, and I am still more sorry to say that many times the physician fails to realize how much he is responsible for the condition.

There is another type of case where the physician is not responsible for the initial delirium, but where a similar mistake is often made. Recently, a young woman was admitted who had been delivered of a child some two or three weeks previously. Now child-bearing is usually a more or less exhausting experience. In this particular case it was especially so because vomiting had persisted throughout the pregnancy and the patient came to labor in poor physical condition. Delivery was accomplished without any special

difficulty, but a few days later mental symptoms appeared. The patient became talkative and sleepless, and somewhat active. Bromide and morphine were given, but very little food had been taken since delivery, and none at all for four days previous to admission. On arrival she was stupid, knew nothing, and was in a state of extreme physical exhaustion, her pulse rapid and hardly perceptible at the wrist. It seemed probable that she would die, as I doubted very much whether she had sufficient vitality left to use food. She would not eat and was tube fed. It was three or four days before her pulse showed much improvement, but after that she gained rapidly, and at the end of a couple of weeks she was clear enough to recognize and talk with her relatives and strong enough to leave her bed. She is not yet recovered from her psychosis, but her physical condition is good and I anticipate a complete recovery.

These puerperal cases are again a type of case of which we get many and are naturally of interest to the general practitioner. Many of them are of short duration with us, even with the superimposed drug delirium and exhaustion with which we have to contend. I am inclined to believe that if the physician would avoid sedatives and insist upon abundant nourishment, even tube feeding, if necessary, many of these deliria would be aborted in so short a time or would be of such slight degree, that they could be cared for at home.

Let me tell you of another very interesting case. A young woman, in good physical condition, began to feel mean and somewhat depressed, and a little later suddenly developed an active delirium with high temperature and rapid pulse. She was brought to this hospital at once. She had been much constipated and her abdomen was considerably distended. After repeated enemata an enormous quantity of fecal matter was evacuated, and the abdominal distention relieved. My feeling at that time was that with proper regulation of her bowels and a maintenance of her physical condition, the temperature and pulse would soon drop, and she would make a speedy recovery. Prolonged constipation in certain individuals will occasionally produce such a picture. She would not take a sufficient amount of nourishment, and in order to lose no time,—for loss of weight and exhaustion are often rapid in an active condition such as hers,—tube feeding was begun at once. The pulse and temperature, however, did not fall, the delirium continued and within a week it was discovered that she had typhoid. The blood showed a positive Widal reaction. With the liberal amount of nourishment, given by tube, her strength and weight had remained good, and after about two weeks the delirium subsided. She was clear and willing to eat. The liberal diet was continued, and long before the fever subsided she was strong enough to have left her bed if it had seemed wise. When she was allowed to get up,

she had lost but about four pounds in weight, a very small percentage for a large woman of one hundred and sixty pounds. She left the hospital soon after and in a short time resumed her work.

In most general hospitals, or cared for by many general practitioners, such a case, refusing food so long, would have lost so much weight and become so physically exhausted, that it is doubtful whether the resistance would have been sufficient to withstand the toxemia, or at best, the patient would have been so emaciated and weakened as to require a long convalescence. I recognize that now-a-days the profession generally have been feeding typhoids liberally, with good results, but, so far as I know, this is limited to those who will eat.

The alcoholic deliria or delirium tremens cases form another large group often treated in general hospitals and with rather poor results, the death rate being discouragingly high. If you are not already familiar with the much more successful treatment of these cases at the Psychopathic Hospital since its opening, it is worthy of your attention. Our experience here is limited with such cases, as it is not the usual policy of the hospital to receive them. The last patient admitted was a young society woman who had been a moderate drinker for some time, but who for some months had been drinking excessively, often to the point of extreme intoxication. She had been rising earlier and earlier for her morning drink until just before admission she found it necessary to rise as early as 3.00 a. m. On arrival she was clear but exceedingly tremulous. While not in bad physical condition, she showed her lack of nourishment; for, like most alcoholic cases, she had let drink take the place of food, under which circumstances the alcohol is always more poisonous and the system less able to withstand the toxemia. She became actively delirious at once. Her hallucinations of sight were extremely terrifying. In short, she was in a condition to exhaust herself rapidly. The alcohol was withdrawn, she was tube fed and put in the prolonged baths. On the second or third day she had several severe convulsions and some lesser ones. This active delirium persisted for about a week, during which time she was without sleep. At one time the weakness of her heart demanded digitalis. Except for this, the only treatment was food three times a day. In spite of the severity of her attack, her strength was sufficiently maintained in this way, and once her delirium was over she made a rapid and complete recovery.

I feel very positive that if we had depended upon what little nourishment the patient might have swallowed, she would have soon become exhausted and died. You will notice that she not only received no sedative drugs, but that the alcohol, the causative poison, was immediately discontinued.

I was recently consulted about a "most peculiar case," as the surgeon called it. The

patient had been operated upon for empyema, and had properly been given some morphine after operation. But as he continued somewhat restless, a considerable amount of bromide and some morphine had been continued. The peculiarity of the case was that while his empyema was doing well, he had developed a mild delirium which threatened to become worse. I was unable to see the case as it was at too great a distance, but I have no doubt that, providing his surgical condition remains satisfactory, with withdrawal of the sedatives and with the giving of a sufficient quantity of nourishment, the delirium will soon disappear. In any event I can see no indication for a continuance of the drugs. If the delirium continues, it is due to the patient's septic condition or exhaustion, and sedatives will not help these.

I would like to call your attention to one other case which illustrates how sedative drugs may mask important symptoms. Some time ago, a middle-aged man was brought here in a delirious condition. He was entirely irrational, unable to answer questions or to give any account of any symptoms, or make complaint of discomfort or pain. His temperature and pulse were somewhat elevated. There were no physical signs and it was impossible to determine what, if anything, besides drugs, was causing his delirium. He died a few days later and at autopsy I found an abscess of the frontal sinus which had perforated the inner table of the skull and involved the anterior portion of the frontal lobe of the brain. The history of the case was that, some weeks before, the patient had had a moderately severe attack of influenza. During his convalescence a severe headache had developed, for which, large doses of drugs had been given, and he was brought here some time after the onset of his delirium. It is quite probable that except for the drug delirium, the patient would have been able to make known his symptoms clearly enough to his physician to have enabled the latter to provide such surgical relief as was indicated.

At this hospital a very large percentage of the patients are the so-called manic-depressive excitements, or acute manias. In these we have a real psychosis, not necessarily associated with any physical disease and usually of many weeks' or even months' duration. It is very doubtful if the general practitioner can take proper care of these cases at home. I should advise their removal as soon as possible to a properly equipped hospital. If there is necessary delay in doing so, feed them in the meantime, if they are not eating, but do not handicap the patient or the hospital physician to whose care they are given, by superimposing a drug delirium.

Then, again, we have the manic-depressive depressions or melancholias. These cases, too, are usually of long duration, and it is again questionable whether they are suitable cases for home treatment. Any melancholy patient is potentially suicidal, and it is very often the mild

cases, whom an inexperienced person would not suspect, who accomplish their purpose. While the deeper depressions are more frequently recognized as dangerous to themselves, and rightly so, they are often so inadequate and retarded as to fail to act though they have the desire. For this same reason they frequently refuse food, and also with suicidal intent.

If you are obliged to care for the manic-depressive excitations or depressions at home, you will find a nurse trained in a hospital for the insane a great comfort and help. Such nurses are not afraid of the excited cases and they know how to handle them. They are also alive to all the possibilities of danger in the depressed cases. I am often reminded of one of our old Boston physicians who, whenever a delirium developed on his ward in the general hospital, used to call for one of those McLean crazy nurses, and, on her arrival, would stand back and watch with wonder and admiration the fearless and tactful way in which she cared for the patient.

In the manic-depressive excitations, owing to their great activity and lack of sleep, the principal danger is one of physical exhaustion. The treatment here at the hospital is directed towards preventing the exhaustion and adding to the weight. This can be accomplished largely by food. Many eat well. Those who do not are tube fed at once and are fed regularly three times a day. The exhaustion is further combated by use of the continuous baths. Most maniacal patients like to play in water and they usually take readily to the tubs. Here their activity is limited to the splashing of water and much less strength is used up than is the case when, confined to their rooms, they run about, jumping from bed to window sill and back, and pounding on the door. Moreover, the warm water has a tendency to relieve the tension, and the most excited patients frequently lie quietly for hours and sometimes even sleep in the water. As a rule, they get more sleep at night after a day in the tubs. Those of you who have seen the baths have noticed that the rooms are of good size, well lighted and have low windows through which the patient can look out. Such rooms add much to their contentment. The water is kept at 99° by means of a mixer and by constant flow of the water into the tubs, the inlet being at the bottom of one end, and the outlet at the top of the other. Sedatives are useless. Only in large and repeated doses do they have any effect and then only a toxic one such as already described. Moreover, they upset the digestive system, interfering with appetite and assimilation, thereby impairing the usefulness of our most efficient remedy.—food.

Again, in the melancholy cases, our chief aim is to maintain and improve the physical condition,—very many of these cases need tube feeding,—and to guard against self-injury. The general sluggish reaction of the depressed patients with their limited activity gives rise to

obstinate constipation, which needs to be corrected and which, when relieved, often leads to improvement of appetite. Many of these patients are also troubled with insomnia. This needs no special treatment, but takes care of itself with the general improvement of the patient. Use is also made of hot air and shower baths, exercises with Zander machines, and out-door sports to help in improving the physical condition. Just as soon as they are able to cooperate, they are given diversional occupations of different kinds, which tend to arouse normal and healthful interests and to crowd out melancholy and delusional ideas.

All the manic-depressive cases tend to lose weight at first, and oftentimes it is necessary, especially with excited cases, to give an extra large amount of nourishment. Sooner or later they begin to gain weight, an indication that recovery has probably begun. The rise of the curve of mental improvement usually follows the rise in the weight curve.

In conclusion, let me say that delirious states arise as a result of exhaustion or toxemia or both. The toxemia may be due to an auto-intoxication or to poisons taken into the system from without. If we bear this in mind, the indications for treatment are clear: prevent or treat the exhaustion, eliminate the toxemia as rapidly as possible and provide strength to combat it while it lasts. This can be accomplished by abundant food and by a careful attention to the bowels.

Sedative drugs only add to the toxemia and handicap the digestive system, upon which we must depend for the maintenance and development of recuperative power. They are irrational and so contraindicated that it is difficult to understand their general use. From questioning different men I find two explanations: one, that they deem sleep the most important thing to gain; as if sleep alone could add strength; whereas, at best, it merely saves what strength one has, a most desirable thing to do, but not in itself enough. A positive addition is necessary, which food alone can furnish. A second explanation is that the family demands results, expects the patient to be quieted. The physician, therefore, must give drugs to preserve his reputation. I have already shown you that the results gained from drugs are not such as to add to anyone's reputation. I believe it best to be frank with the patient's friends and to explain the real situation: the public can be and are being educated. Not infrequently a relative, after seeing a patient grow worse at home with drugs and recover in the hospital without them, is inclined to be critical of his family physician's judgment.

My remarks have been limited to a discussion of the acute recoverable cases. Time does not permit a consideration of the organic and dementing types.

## RELATION OF INDUSTRIAL SURGEON TO INDUSTRY AND TO SOCIETY.\*

BY JOHN F. CURRAN, M.D., WORCESTER, MASS.

In 1911 the Norton Company engaged the services of an industrial surgeon. His duties were:

1. To make physical examinations of all prospective employees and reexamine all physically defective employees and to advise corrective measures.
2. To treat accidents immediately after they occurred and to give subsequent treatments.
3. To make examinations and give advice in cases of sickness.
4. To formulate and control sanitation measures throughout the works.
5. To promote health education among employees.

## PHYSICAL EXAMINATIONS.

The best time to examine a man is before he is hired. First, it enables the employer to place a man at the kind of work for which he is best fitted physically. Second, it enables the doctor to advise the employee regarding any defects that he may have and of which he may not be aware. It gives the physician an opportunity to enlist the man's cooperation in making an effort to overcome his defects, where possible, and thus increase his physical efficiency. Third, it prevents the introduction into the factory of men who are undesirable because of severe defects. Fourth, it prevents contagious diseases entering the factory and becoming established there. A complete examination of every employee is, of course, very expensive to the employer, but the several advantages outlined tend to offset the question of expense.

So much for the employer's side; now let us consider it from the angle of the employee. This thorough physical examination has also many advantages for the employee. First, he is informed of any defects which the doctor finds, and is assisted in obtaining relief. Second, he is not given work to do for which he is not physically fitted. Third, he knows that every other man in the factory has had a similar examination and appreciates the fact that he is safeguarded from contagious diseases. Last, he feels that the employer is taking a personal interest in his condition, and that he can go to the plant doctor for further advice at any time. As the average shop employee, moving from place to place, has no family physician, he feels sure that the man employed in the capacity of industrial surgeon must be competent to handle his case.

Some labor organizations have objected to physical examinations on the ground that it infringes on the liberty of the individual. Every shop has its own rules, and the examination is

merely one of these. If a man objects to this, he is free to seek work elsewhere.

Another point usually brought up is that it enables an employer to reject a man on account of physical defects when he might otherwise have employed him. This gives the labor organizations greatest concern because they realize that oftentimes certain men would be hired in this same factory were no physical examination required. Here it is necessary to remember that the United States Government established the precedent, in examining candidates for army, navy, and civil service positions. Again, the labor unions fear that information of defects in certain men might be passed from employer to employer, thus making it possible to blacklist a man. They fail to realize that such information is of a professional nature, and secrets thus obtained are as carefully guarded as in a doctor's office.

The examination should be as thorough as that required for a first-class insurance policy, because in the departments of many factories the work is of a hazardous nature. The hospital that is a part of the business institution must be particularly careful in such places. Physical examination prevents a defective man from being put to work in these departments. This benefits the employee because it transfers him to work for which he is fitted, and saves him from the risk of serious accident or illness, which might result in death. It benefits the employer because it enables him to secure adequate protection at the most reasonable rates.

Considering the number of men examined, and the different walks of life from which they come, rejections are few—contrary to the general opinion. Statistics show 3%. The surgeons actually make no rejections. We merely note the man's defects, classify him as an A, B, C or D risk and refer him to the employment department, which accepts or rejects him, according to his probable value. Sometimes the employment manager finds a man too old or physically unfit for the work for which he applies, but instead of rejecting him arbitrarily he finds work for him which is suited to his age and physical condition. A man is definitely rejected if he is blind in one eye, because work on grinding-wheels is particularly hazardous to the eyes, even when goggles are worn; and should he sustain an injury which would result in losing the vision in the good eye, the law would require us to compensate him for blindness of both eyes, even though we were responsible for the loss of only one. A person who is blind in one eye certainly does not want to risk losing the other, and the employer knowing the danger is not willing that he should, aside from the fact that compensation would have to be paid should total blindness result. A man cannot be accepted when his vision is reduced to 1/2 in both eyes, for obvious reasons.

All cases of contagious diseases, including, of course, tuberculosis, debar a man from employ-

\* Read before the Twentieth Century Club of Worcester, November 10, 1917.

ment. We ask physicians to lay particular stress on this part of the examination because nothing will disrupt a working organization more disastrously than an epidemic of any contagious disease.

We do not recommend for employment any applicant who has more than a second-degree hernia. Hernia is the bane of industrial surgery. The Latin and the Asiatic races, because of their low social rating, due to lack of education and consequent mode of living, do the most laborious work in our factories. They are most prone to hernia because their diet does not include muscle-building food. When they sustain this injury they cannot or will not work, and an operation becomes imperative, with its resultant loss of time and expense to the employer. Here again the physical examination proves its value. Sometimes a man sustains this injury outside the factory. Were he to aggravate this condition while at work, the company would be held as responsible as if it were to blame for the incidence of the hernia.

We reject all cases of heart disease with disturbed compensation, that is, shortness of breath, swelling of extremities and palpitation.

Varicose ulcer is a menace because certain forms of occupation either prevent entirely or delay the healing. This condition is likely to recur again or to break out in a new place as a result of a trivial injury.

All cases of marked hypertension are rejected because certain kinds of work might increase the man's blood pressure, which, in turn, might induce cerebral hemorrhage. This would make us responsible for his death or incapacitation, as the case might be.

A man presenting a major defect (by major defect is meant a hernia, a heart or lung lesion) is reexamined every three months, or oftener, if his condition warrants. The reexamination plays a threefold part; it benefits the employer, the employee, and the examining physician. It enables the employer to have efficient workmen; it enables the employee to keep in such a fit condition that he may earn the largest possible wage, and it gives the physician valuable information as to the conditions under which certain defects do well. It also makes it possible for him to see that remedial measures are intelligently carried out.

The second important division of the industrial surgeon's duties is the treatment of accidents immediately after occurrence. The Workmen's Compensation Act was drawn in order to compensate the employee for injury received in the course of his employment. This compensation was divided into two parts—one a reparation part, which provided medical care to repair the injury; the other a compensatory part, to insure the employee against complete financial loss while incapacitated. The underlying thought in the reparative part of the provision is to alleviate suffering, to produce sound

and rapid healing of the injury, and to promote a quick return to work.

The section states that medical service shall be provided for a period of fourteen days, so that the injured workman, even though not severely enough injured to prohibit work, is entitled to medical service. This is not only reparation, but prophylactic.

In Massachusetts there are two recognized methods of complying with this law: first, the employment of a factory surgeon; secondly, the sending of the injured employee to a surgeon employed by the insurance company.

A great advantage in the factory hospital system is this: there is a minimum loss of time. The length of time which elapses between the occurrence of the injury and the time of the first treatment is of the utmost importance. Adequate treatment promptly applied will, in 95% of the cases, result in adequate disinfection and consequent prompt healing of the wound. Statistics show that infection increases in proportion as the time lengthens between the occurrence and first treatment of the wound. In our plant, covering several acres, there would be considerable loss of time and risk of infection to the patient coming to a centrally located hospital, and to offset this, we have established four sub-hospitals. There the minor cases are treated and the men sent back to work. They are examined on the following day by the surgeon on his daily visit. The cases of a more serious nature are given first aid and sent to the main hospital, if the case is an ambulatory one. If not, the surgeon is summoned, and after examination prescribes or renders the necessary treatment. This procedure is always possible because there is a doctor in the plant from 8 a.m. until 6 p.m., and one on call from 6 p.m. to 8 a.m.

Contrast this method with the so-called insurance form! Where the factory is large, they have a nurse; if not, some one who is more or less skilled in the treatment of wounds is selected to render first aid. If, in his opinion, the patient needs further treatment, he is either sent or taken to the insurance doctor's office, provided the severity and extent of the injuries warrant it.

The industrial surgeon classifies his cases into three groups: first, those cases which need absolute rest to promote rapid healing; second, those whose injuries make it impossible for them to do their usual work, but permits work of less exacting nature to be done; third, those whose recovery will not be retarded by performing their usual duties after the first treatment. The industrial surgeon is well qualified to judge in these cases because he knows the man's history, the nature of his work, and can solicit the aid of the foremen in placing the patient in a department where he may earn his wage without risk to himself or loss to his employer.

The surgeon employed by the insurance company is not usually acquainted with the man, nor with the nature of his work, and can decide only one of two things,—either the patient goes back to work or goes home. Often the patient makes his own decision after leaving the doctor's office.

After the first treatment, a man is told to report at the hospital at a specified time, which is determined by the nature of the injury. If he does not comply with this instruction, he is sent for and his condition is investigated, should he be at work. When we find that a man is loafing he is investigated by our "follow-up" man and is brought to the hospital or is visited by the surgeon personally. This is determined by our knowledge of the case and the investigator's report.

Sanitation is another of the difficult problems with which the industrial surgeon must cope. He must see to it that the men work in properly lighted and ventilated rooms and have proper toilet facilities. He has a corps of workers whose particular duty is to keep the toilets and washrooms clean, to supply receptacles for refuse, and cuspidors of such a kind as can be easily disinfected.

Health publicity is a field which offers vast possibilities for the betterment of health conditions in the community through the coöperation of doctor and workman. As it is practically impossible to instruct each employee individually, we issue pamphlets each month on some timely subject in surgery or medicine having some practical value to the workman. These are enclosed in the pay envelope, and are read and appreciated by most of the men. At stated times lectures are given to which the workman may bring his family.

Owing to the increasing interest in social insurance, I have purposely left my discussion of the treatment of sickness until last because these two topics are closely related. It is the duty of the industrial physician to treat minor illnesses. Experience has taught that the prompt diagnosis and treatment of illness may prevent serious disease, loss of time and suffering to the patient, and loss of profit to the employer, due to lessened production. When we find that a man is too ill to remain at work we urge him to consult his family physician. As you know, practically every physician depends on the workingman as his chief means of earning his livelihood. Were this source of income removed, it would seriously menace his practice. This might make the general practitioner antagonistic to the industrial surgeon, and adverse criticism given his patients would tend to reduce our efficiency. After a man has recovered from his illness he must present himself for examination before he can return to work.

Our methods open up vast possibilities in the field of preventive medicine, where everything depends on the individual. Much can be done

by education through the schools, by articles in papers and magazines, by lectures and motion pictures, but the most effective means is through direct contact with the individual. After our examination he knows either that he is sound or defective and, if the latter, he receives the necessary instruction to remedy his defects. He knows the type of work for which he is best fitted, and, finally, he knows what a thorough examination is.

If every workman possessed this knowledge we would have a campaign of preventive medicine which would affect the whole country.

#### ORGANIZED PROVISION FOR THE CARE OF THE SICK IN MASSACHUSETTS.

By G. E. WHITEHILL, M.D., EVERETT, MASS.

THE Commission on Social Insurance gave a special hearing for physicians, at the State House, September 26, 1917. One of the questions on which the Commission asked information was:

"To what extent are wage-earners able to avail themselves of free clinics in the State?"

The following data were prepared as an attempt to answer this question in a general way, and were presented in October and November by the author. The data herewith submitted for publication have been somewhat amended by the elimination of most of the items containing estimates since its presentation to the Commission, but with only a few exceptions are substantially as presented on the dates named.

Organized provision for the care of the sick in Massachusetts:

1. State or municipal hospitals, or boards for the care of those dependents requiring help in other ways beside sickness. During 1916, 3% of the population was cared for in this way.
2. Charitable hospitals, dispensaries and nursing associations, organized and financed by voluntary donors, the medical profession co-operating with free medical service, and the nursing being performed by pupil nurses. During 1916 from 12½ to 14½% of the population was aided by this group of institutions.
3. Special hospitals for dependents with chronic diseases.
4. Hospitals and institutions for the care of tuberculosis, contagious diseases, etc.
5. Private hospitals for the care of those who can pay well for all needed service.

The various institutions under group 2 comprise 100 or more hospitals, 39 with out-patient departments, 11 dispensaries and about 30 nursing associations. The aim is to help the large part of the population generally designated as wage-earners.

As a group, these institutions admit patients without regard to race, color, sex, religious belief, or ability to pay. Their purpose is to care

for accident cases and those suffering from acute or surgical diseases, whose greatest need of help comes from sickness.

There is, on an average, one institution for every 32,000 of the population, with an invested capital between \$45,000,000.00 and \$50,000,000.00.

During 1916 one person in eight and one-half of the whole population was treated at a hospital, or dispensary, making a total of nearly 450,000, the aggregate cost being nearly \$6,000,000.00. It is difficult to estimate from the published data the average cost of the out-patient and dispensary service. The out-patient service at the Massachusetts General Hospital for 1916 was \$0.51 per visit. Using this as a basis for out-patient and dispensary service for the whole state, the average weekly cost for hospital service was \$15.70. The average stay in the hospital was two weeks and one day. One person in 26 or 27 of the population (4%) was cared for in a hospital. One person in 12 of the population (8½%) paid between three and four visits to a dispensary, or out-patient department of a hospital. One patient out of three was treated in a hospital free. One patient out of three paid a part of the cost at a hospital. One patient out of three paid more than cost at a hospital. For the Metropolitan group of hospitals and dispensaries, one patient in two was free. Outside this district one patient in five was treated free. For the whole state the average for both being 34% free. The Metropolitan group comprised 7-12 of the hospital cases, 5-6 of the out-patients, and nearly all of the dispensary patients. The service at both the out-patient departments and dispensaries was either free, or merely nominal. Five district nursing associations served a population of 1,200,000, making over 200,000 visits on 2% of the population, one person in fifty being cared for on an average of eight visits.

The income derived from patients visiting the hospitals, out-patient departments and dispensaries, in 1916, was \$3,372,000.00, the amount of free treatment being \$2,614,000.00, or 43%. For the dispensary and nursing service, more than sixty per cent. was free.

The summary herewith submitted is based on the data published in the 38th annual report of the State Board of Charity for 1916. While the data of many of the hospitals are incomplete in some of the items tabulated, many of the deficiencies have been supplied by the office of the State Board of Charity. When no data were available an estimate was made, based on the general average of the group of hospitals considered. Most of the institutions tabulated are classed as charitable corporations, but by using the service available principally for the needs of wage-workers as a basis of classification there are 89 hospitals mainly for acute diseases, naturally coming under group 2, that served in 1916 approximately 134,000 patients. There are five

large hospitals devoted largely to chronic diseases that cared for 2015 patients, on an average of 105 days each, with a total bed capacity of 730.

The service rendered by the South Department of the Boston City Hospital and the Haynes Memorial of the Massachusetts Homeopathic Hospital in 1915, provided for 4469 patients suffering from the common forms of contagious diseases and are included in the totals of the 89 hospitals already mentioned. The average stay was a little over 30 days, and the average cost about \$40.00 for each patient. If the same ratio to cost and bed capacity prevailed for 18 smaller contagious hospitals, with a total bed capacity of 574 beds, the service would provide for 5740 patients, at a cost of approximately \$224,750. There are six small hospitals with incomplete data, having about 100 beds. Using the average for the acute hospitals of 14 patients per bed, for the whole number, and the average weekly cost of \$15.70, there would be a service available for 1400 patients, at a cost of \$52,752.

The total hospital service under extended group 2 provides 118 hospitals caring for 142,763 patients.

There were 39 hospitals that maintained an out-patient department and treated approximately 240,048 patients, with a total of 862,527 visits. Eleven Boston dispensaries treated 65,752 patients for 244,468 visits. The combined hospital out-patient and dispensary service totaled 449,054 patients, at a cost of \$5,988,406.00.

When giving the proportion of service to the population of the whole state, the estimate of 3,779,033 was used, the same as used by the State Department of Health,—estimated population of Massachusetts for July 1, 1916.

The institutions tabulated do not as a rule care for tuberculosis cases, but some overlapping is inevitable when the available institutions are limited.

Number of nurses registered by Board of Registration of Nurses since October, 1910, is 7363.—Report of Board of 1916.

#### PRESENT EQUIPMENT FOR SERVICE UNDER EXTENDED GROUP 2.

One hospital,	
or dispensary, for every 32,000 of the population	
One hospital bed for every 375 of the population	
*One pupil nurse for every 750 of the population	
One reg. nurse for every 513 of the population	

While an effort has been made to determine the approximate number of beds available for the care of sickness throughout the state, no rigid classification is applicable to many institutions. By classifying under group 2 several hospitals devoted to infants, a few caring for chronic or incurable diseases, and including the full capacity of two large hospitals with separate departments for contagious diseases, and 18 other hospitals for contagious diseases, we obtain 118 hospitals, with a total of 10,184 beds.

\* See Note on page 220.

Institutions classified under group 4 care for tuberculosis and the common forms of contagious diseases. The Massachusetts Anti-Tuberculosis League, under the date of April, 1917, reports 13 state institutions with a bed capacity of 1722 beds, 16 county or municipal hospitals with 1078 beds, and 29 private hospitals, sanatoria, or boarding houses with 551 beds, or a total of 58 institutions for tuberculosis with 3351 beds.

In October, 1917, the State Board of Health reported 21 hospitals devoted to the care of contagious disease, with a bed capacity of 1261, with two additional hospitals already authorized, having a bed capacity of 58.

Complete data for private and semi-private hospitals, comprising group 5, are not readily available. Polk's Medical Directory for 1914, supplemented by data furnished by Alice McIntire, Inspector of Incorporated Hospitals, who also supplied additional data for the hospitals classed under group 2, gives 121 hospitals or sanatoria, with a bed capacity of 3940 beds. Practically all the data were compiled previous to 1914, and it seems reasonable, in estimating the number of beds at present, to increase this number by at least ten per cent., to include natural growth and unavoidable gaps in the records, making the number of beds of a private nature at least 4340. The above classification does not include the Naval Hospital with approximately 250 beds under normal conditions, the Boston Quarantine Station with 300 beds, nor various isolation hospitals throughout the state, which would probably total nearly 1000 beds.

It seems a conservative statement, that under the four groups mentioned, there are approximately 20,000 beds designed in large part to care for acute diseases and that fully three fourths of this number are maintained by private initiative and private funds; the other fourth being maintained by either state or municipal hospitals, devoted to tuberculosis or contagious diseases, both of which are looked upon as matters of public concern.

Besides caring for the unfortunates generally designated as paupers, as well as those convicted of crime, the state cares for a relatively small group of dependents requiring special medical treatment covering long periods. The last printed report of the State Board of Insanity for 1915, page 94, gives 16,436 beds as the capacity of 16 or more institutions, providing for the insane, feeble-minded and epileptics. The report of the State Board of Charity for 1916 shows this board supervised the care of alcoholics at the State Farm, drug-users and inebriates at the Norfolk State Hospital, crippled children at the Massachusetts Hospital School and gave general medical and surgical care to a large group of unfortunates at the State Infirmary, requiring the use of 1200 beds for the four institutions. This last total group requiring approximately 18,000 beds, the number cared for approximating 25,000 patients maintained as public charges.

Dr. E. A. Codman of Boston has summarized the expense of this work in a paper printed in the BOSTON MEDICAL AND SURGICAL JOURNAL for March 22, 1917.

We quote the following:

"Some idea of the amount now spent in Massachusetts for the care of public health and sanitation, and for the maintenance and care of the sick, poor, and insane may be derived from the following figures:

INVESTMENT IN STATE INSTITUTIONS IN REAL AND PERSONAL PROPERTY.

Report of State Board of Insanity ..	\$ 17,610,837.84
Report of State Bureau of Statistics ..	4,732,129.53
Report of State Board of Charities ..	6,900,738.94
State Institutions .....	121,413,052.21
Certain (802) Endowed Institutions ..	
*Estimated from Report of State Bureau of Statistics. Municipalities and Towns .....	49,057,612.00
	\$199,714,368.52

The annual expenditure for these purposes may be estimated as follows:

Appropriations for State Board of Insanity .....	\$ 6,190,647.91
State Board of Charities. State Institutions .....	15,698,875.44
Certain (802) Endowed Institutions. Report of Bureau of Statistics, Municipalities and Towns .....	13,730,586.46
Health Appropriation, 1915 .....	385,814.84
	\$36,014,924.65

The sickness survey made in Boston in July, 1916, by the Metropolitan Life Insurance Co., reported that 35% of the patients under the care of a physician (Table 8, p. 18) were treated either at a hospital (24.2%), or dispensary, 11.3%.

From a medical standpoint the limitations attending the taking of most sickness surveys, renders the so-called facts, as well as many of the conclusions, open to question.

The Boston Survey records that 51.8% of the cases of sickness (see p. 14) had been sick six months, or more; 25% three years or more; 61.1% three months or more.

This class of patients do not fit in with the acute cases averaging only two weeks' care in a hospital, and are wholly unprovided for in any health insurance scheme so far advocated. They do help to swell the total sick roll used as a basis for computations. On page 11, Boston Survey, the statement is made that the statistics of the Rochester, New York, Survey, very nearly approximate the percentage of acute and chronic diseases recorded in the Boston Survey.

The Dutchess County, New York, survey recommends, for the proper relief of this county, with a population of 88,255; 43.6% urban and 56.4% rural, for all purposes, one hospital bed

\* NOTE.—If the annual expense is \$13,730,586.46, the investment may be determined as proportionate to the expenditure of the State Institutions to their investment.

to every 418 of the population. Massachusetts for a limited part of the service has one bed for every 375 of the population. The same report recommends the services of either a trained or untrained nurse for every 802 of the population. Massachusetts has one registered nurse for every 513 of the population.

Most sickness surveys fail to record either alcoholics or venereal diseases. Feeble-mindedness, alcoholism and venereal disease must be seriously considered in any helpful campaign to eliminate poverty or sickness. The field worker for Dutchess County was able to report only one case of venereal disease out of 1600 cases of sickness. From data on venereal disease supplied by the hospitals, the report recommends one bed for these diseases for every 6615 of the population—7.1% of the whole required for Dutchess County. (See p. 100.) Applying the same ratio for Massachusetts, there would be needed 572 beds for venereal diseases, or 17 beds less than the entire complement of beds at the Massachusetts General Hospital. The same survey recommends one bed to every 3042 of the population for alcoholics. For Massachusetts that would take 1242 beds, and would fill both the Boston City Hospital and Carney Hospital, with only 24 beds vacant. For psychopathic patients, one bed to every 4643 of the population is recommended. This would require 815 beds, and would fill the vacant beds at the Massachusetts General Hospital and Carney Hospital, fill both the Massachusetts Homeopathic Hospital and the Peter Bent Brigham Hospital, and leave over 40 patients on the waiting lists.

Thus five of Boston's largest hospitals would be required to care for the psychopathic, alcoholic and venereal diseases, estimated by the Dutchess County survey to comprise 30% of the necessary hospital service. The capacity of these five hospitals is 2586 beds—over one-fourth of the beds now available in the class of hospitals under consideration.

**NOTE.**—The purpose of compiling this summary of the medical work in Massachusetts has not been to cover the ground in any technically statistical way, but to give a general summary of what is being done, hoping that some one with more leisure and statistical skill will cover the subject in the near future more fully. During the past few months a number of valuable compilations have been made by members of the office force of the State Board of Charity, which should make a more accurate and fuller presentation of the subject much easier.

\* **NOTE.**—Dr. LAURA A. C. HUGHES, Chairman of the Survey Committee of the Massachusetts State Nurses' Association, reports the following as the approximate number of nurses available in Massachusetts Jan. 1, 1918.

Registered Nurses .....	4942
Graduates, not registered .....	1760
Red Cross Enrolled Nurses .....	892
Total .....	7594
PUPIL NURSES 1918.	
Approved Schools (85) No. Nurses .....	4413
Unapproved Schools (37) No. Nurses .....	620
Total .....	5033

## GASTRO-DUODENAL PERFORATION: A NEW DIAGNOSTIC SIGN.

By MARTIN T. FIELD, M.D., SALEM, MASS.,  
Visiting Surgeon to the Salem Hospital.

ANYONE who has had much experience with perforation of the stomach and duodenum must be impressed with the ease and certainty with which the diagnosis can be established in the majority of instances,—periods of stomach disorder, then sudden and severe pain in the epigastrium, immediately followed by general abdominal tenderness and inflexible rigidity, the points of maximum tenderness being usually over the ulcer site and the iliac fossae, especially the right. This is particularly true in duodenal perforation. The pulse may not be above 80; the temperature may be normal; there may be no evidence of collapse, yet a positive diagnosis can be made. The symptoms and sequence of symptoms are just as distinctive as they are in acute appendicitis.

The diagnosis, however, cannot always be so simply made. In some cases, the greatest difficulty may be experienced. The history of stomach trouble may be absent; pain may not be of the superlative type and, above all, the distinctive board-like rigidity may not be present.

In some of these cases we are forced to consider many possibilities—appendicitis, pancreatitis, cholecystitis, intestinal obstruction, mesenteric thrombosis, and even non-operative conditions.

There are probably many factors which lead to this confusion; the most important one is that which underlies the production of intra-abdominal pain. There has been much work done on this important subject by Lennander, Wilms, Kast and Meltzer, Ritter and others. The conclusions of all these observers are not the same, but the following views of Lennander have been accepted by most surgeons as conforming most closely to their operative experience.

"Pain does not originate within the abdominal organs, which are supplied only with sympathetic and the vagus nerves. All pains originate in the parietal peritoneum and subserous connective tissue structures, which are innervated by the cerebrospinal nerves. Therefore the stomach and intestines can be crushed, cut or burned without eliciting pain, but irritation of the parietal peritoneum or stretching of the parietal (mesenteric) attachments of the stomach or intestines will invariably cause pain."

Whatever may be the true cause, the clinical fact remains that some of these cases of perforation do not exhibit the profound symptoms seen in other patients and, with the diagnostic aids now at our disposal, the diagnosis must often remain in doubt.

We are told that the proper thing to do, under these circumstances, is to explore, as the patient needs an operation anyway. This course is unsatisfactory for many reasons:

1. It is not very encouraging to a patient or his family to know that the abdomen is to be opened, with four or five surgical possibilities in mind.

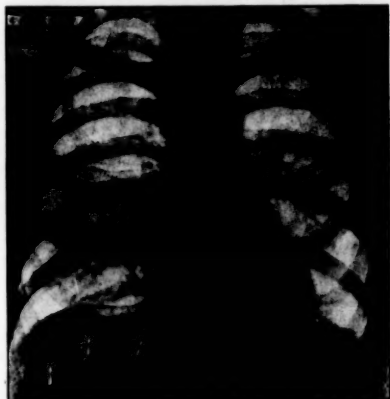
2. Perforation is surgically more urgent than many other conditions with which it might be confused. Therefore, a diagnostic certainty would often mean less delay.

3. If doubt exists between perforation and some non-surgical condition, it is important to remove this doubt at the earliest possible moment.

4. The placing of the incision, while ordinarily of no great importance, might be a vital matter in the case of an extremely ill patient.

What other aids to diagnosis have we that are independent of parietal peritoneal pain and sensitiveness?—The presence of free air in the peritoneal cavity is surely the most important.

It is safe to say that every perforation large enough to allow fluid to escape, also allows some gas to pass through. When air is free within the peritoneal cavity, in sufficient amount, it may pass between the liver and diaphragm, causing obliteration of liver dulness. X-ray examination verifies this.



Case of duodenal perforation reported by Dr. Walton Martin in *Annals of Surgery*. Arrows point to semilunar strip of lessened density above right lobe of liver, denoting free air.

There seems to be much difference of opinion regarding the occurrence and importance of this phenomenon.

Mayo Robson says: "Liver dulness is generally absent"—on the other hand,

C. L. Gibson declares that "It is a great pity that it is allowed to remain as one of the possibilities of diagnosis."

A. D. Bevan says, "You cannot wait to find free air in the peritoneal cavity obliterating liver dulness. I have never seen a perforating gastric or duodenal ulcer with that sign."

Cubbins states that "this sign is present usually in moribund cases with greatly distended abdomen and paralytic condition of the abdominal muscles."

Rutherford Morison says: "If liver dulness is present at first, and an hour or two later is discovered to have disappeared and become replaced by a tympanitic note, the sign is then one of the first-rate importance. It signifies the presence of free gas in the peritoneum, and a perforation. No other record regarding liver dulness is reliable."

It may thus be seen by the foregoing extracts that there is the greatest difference of opinion regarding the presence and significance of this phenomenon.

There are many reasons why much dependence has not been placed on variations in liver dulness, as these can be affected by a great many factors, both in health and disease. Liver percussion is influenced by expiration and inspiration, by lesions within the pleura and lung, conformation of chest wall, size, shape and position of the liver, tympanites, etc.

It is evident, therefore, while every one admits the great clinical significance of free air in the peritoneal cavity, that the great problem is to detect it, and not be misled by the multitude of conditions that influence liver percussion.

As has been stated before, x-ray examination shows that in perforation, air does collect between liver and diaphragm; abundant clinical evidence also proves that obliteration of liver dulness does occur. A previous report of mine shows that this may occur within the first few hours after perforation and with a rigid abdomen. Further study and experience have led me to the conclusion that *obliteration of liver dulness is not so much absolute as relative, and depends much on the position in which the patient is examined*; this practical point may be of the greatest value in differential diagnosis. The following interesting cases support this contention.

CASE 1. Female, age 44 years; much emaciated. Sitting on kitchen sofa when first seen. Declared that two hours previous to my visit she was seized with very severe abdominal pain, but was now feeling much better. Pulse 86, temperature 97°. Moderate tenderness over whole abdomen, more marked in the epigastrium; muscular rigidity not pronounced. Percussion over the liver in the anterior axillary and mammillary lines showed tympany throughout. This, of course, added greatly to the evidence in favor of perforation even though her symptoms were in no way typical. To be certain that no mistake had been made regarding liver tympany, the liver region was percussed again, and to my surprise, instead of getting tympany, marked flatness was obtained over the same area. At first I could not understand it, but it soon occurred to me that the difference in findings was due to the difference in the position of the patient. The examination was repeated several times, first on one side, then on the other, always with the same results. The reason, of course, was quite clear. With

the patient lying on her left side, the fluid which is always present in perforation, flowed away from the under surface of the liver to the most dependent part (left side) while the gas arose to the top, accumulating between liver and diaphragm, causing the tympany instead of liver dullness. When she was on her right side, the air became uppermost (left side) while the fluid gravitated to the under surface of right lobe of liver and Morison's pouch, thus intensifying liver dullness. The diagnosis of perforation was made and, at operation, a large gastric perforation with a considerable amount of gas and fluid was found.



Air between liver and diaphragm causing tympany, patient lying on her left side.



Liver flatness continued into the flank caused by gravitation of fluid, the air rising to the top. The patient is lying slightly on her right side.

CASE 2. Male, age 24 years. This was a typical case of perforation; the initial pain and board-like rigidity were well marked. Percussion over the liver revealed the same findings as in the previous case. Tympany over the right lobe of the liver when the patient was on his left side, and this was replaced by flatness which extended well below the 10th rib, when he was lying on his right side. Operation disclosed duodenal perforation.

CASE 3. Male, age 44 years. This extremely interesting case was seen in consultation, patient having been ill for over three days. The attending physician stated that the onset of the trouble was sudden and accompanied by severe pain and tenderness over the entire abdomen, muscular rigidity being marked.

At the time of my visit the abdomen was quite soft, gall-bladder region excepted. There was some tenderness over both iliac fossae, but tenderness was most marked in the epigastric and right lumbar regions. The diagnosis, "gall-bladder or a high appendix," was not an unreasonable one. It seemed to me, however, that a perforation should also be considered. Liver percussion brought out the same findings as reported in the other two cases. Therefore, a definite diagnosis of perforation was made. At operation a hole in the first portion of the duodenum, large enough to admit the end of a curved half length was found and repaired.

#### SUMMARY.

1. The diagnosis of perforation of the stomach and duodenum must many times remain in doubt unless aided by some distinctive and reliable sign, independent of parietal peritoneal irritation and tension.

2. In every case of perforation, gas and fluid are present in varying amounts in the free peritoneal cavity. The gas may pass between the liver and diaphragm, as shown by the x-ray, and cause obliteration of liver dullness.

3. Much dependence cannot be placed on liver percussion as ordinarily practised, because of the very great variations, both in health and disease.

4. Change of patient's position will cause the fluid to flow to the dependent part, and the air to rise to the top. *This will intensify the findings; tympany over a wide liver area and again flatness over the same area on change of position.*

5. Normally there is a change in the liver percussion note on change of posture. This was noted in a large number of normal cases examined, but in none of these were the results similar to those found in the cases reported. Normal liver changes must be recognized before positive deductions are made. A fair comparison is the difference detected in shifting flank dullness in moderate ascites and in the normal abdomen.

6. The writer believes that this sign is of considerable value, and should be sought for in every case. If absent, in the presence of other positive signs of perforation, it may be disregarded, but if present in doubtful cases, it may be the deciding diagnostic factor.

#### DIFFERENTIATION OF STREPTOCOCCI.

By D. M. LEWIS, M.D., NEW HAVEN, CONN.,  
Epidemiologist, Board of Health.

THE voluminous literature of laboratory differentiation of streptococci demonstrates that an immediate working knowledge of the various types is impossible for the epidemiologist. Should there be applicable to the field worker even a rough differentiation on the basis of morphology only, an immediate need could be

supplied. That such is the case is suggestive from my observations of the past few years.

Based on corroboration of cultures and physical examination, I have shown that, morphologically, a streptococcus gave us a working basis as an aid in the control of scarlet fever.<sup>1</sup> My experiences since that time are in accord, both in cases and suspected carriers. In isolated instances the tentative diagnosis as between scarlet fever and grippe was favored from the findings, and apparently was correct from the later course of the disease, as well as other family infections following. Its presence during convalescence in isolated instances was confirmed by confirmation of finding missed cases.

At the time I pictured a streptococcus which I stated had been found in cases of measles only. Since that time I have found the streptococcus in the examination of routine cultures and several hundred special cultures for nasal carriers (special because the cultures were from other than ordinary head cold noses), in but three instances. One was in a case first called diphtheria, then scarlet fever, but which showed the German measles rash and throat of a grippe, and who had had measles some three or four months previously. Two others were found in neighborhoods where there was measles present and where, with the isolation of and the treatment of the two, both of whom had had measles the previous season, there followed an absence of further found cases. While these cases are too small in number to be more than suggestive, its relative infrequency and the need for finding the nasal carriers of the disease before they give rise to any frequency, bespeaks for the finding a thorough trying out.

There are two other varieties of streptococci which, from a morphological viewpoint, have given me satisfactory results. With the simulation of diphtheria, where both case and nasal carrier showed a streptococcus, I followed the epidemic of grippe, with its numerous sore throats, by cultures. Extending through the year following, I have found the following: The frequent finding of a Gram-positive, medium-sized streptococcus, usually in straight chains of varying number of constituents, has led to the usual finding of chronicity of recurring sore throats, without other illnesses being found in the other members of the family previously, during or following the case. Physical examination shows an absence of the edema or the amount of general mucosal inflammation, characterizing the classes to be described. The findings in the throats simulating diphtheria, scarlet fever and measles are a Gram-positive streptococcus, generally much coarser than the ordinary type mentioned, even to forms as large as the streptococcus S described in scarlet fever. The nasal carriers in the family have given the same type. A notable finding during the past few months in the routine search for diphtheria carriers by inspection of children's nares has

been a not infrequent finding of such an organism on the first few cultures. Later, as the region of the middle turbinate is opened up after softening of the anterior crusted portion, I have been surprised to find pure cultures of diphtheria. The reverse has also happened in isolated instances. Two of the most tedious diphtheria carriers to cure, showed, after obtaining a clear passage of the anterior nares, cultures of the streptococcus. After seeing from the spinal fluid of a polio case a very different type of streptococcus, I began to watch for and investigate any such findings. Gram-positive, of a distinctly diplococcal as well as diplo-streptococcal form, I have recorded finding in conjunction with simulated diphtheria, though less than the first form mentioned. Smaller than the usual ordinary streptococcus, larger than that found in measles, it is evident in the diplo-streptococcal form. I have found it in nasal carriers, and those carriers on examination are a similar picture to a diphtheria carrier, though leading me back to premises where polio was present.

What are the limitations of such findings? None, during a consecutive period of two years. Investigation of the case or the carrier has shown that in the immediate family in both the latter types of streptococci, or in the neighborhood children of the same age, case and carrier, when they had the freedom of the neighborhood, they apparently gave rise to cases of infectious throats, laryngitis, pneumonia, malaria, impetigo, infective epidemic jaundice, glandular enlargements, as well as simulating the diseases we have mentioned and typhoid fever. A frequent strict isolation of the carriers, as well as the continued nasal treatment of all such carriers found, would seem as rational as for the carriers of so-called contagious diseases, when looked at from two standpoints: first, the demonstration of what follows in families of such carriers; secondly, what happens when we restrain and treat such carriers, not only when found in connection with family illness, but, better, as we are now doing—before we know of any family illness. This has happened: an increased school attendance and, more important, a lessened frequency of reported cases and deaths from each and the sum total of acute infectious diseases, in comparison with the seasonal and epidemic relation to other cities of the region under similar conditions. I have stated that from isolated instances I am of the opinion that the control of mumps and chickenpox lies definitely along the same lines. Limitation of time and assistance has not permitted their investigation. There has been one other limitation, which should be possible for communities with proper facilities to overcome. It is that the laboratory shall take up the subject of differentiation as already determined, in relation to not only these types which lead us to demonstrable pathological carriers and cases in

the field, but that the type or types which do not lead back to contagiousness shall be definitely placed as well. This problem is part and parcel of the control of pneumonia as well. What the field investigation of diphtheria has shown to be true in the diagnosis and control of that disease may well be reasonably true of these other diseases.

## REFERENCE.

<sup>1</sup> A Laboratory Aid in the Diagnosis of Scarlet Fever, THE BOSTON MEDICAL AND SURGICAL JOURNAL, February 1, 1917.

### Clinical Department.

#### SEVERANCE OF THE CHORDA TYMPANI NERVE.

By IRVING SOBOTKY, M.D., BOSTON.

*Otologist and Laryngologist, Long Island Hospital and Berkeley Infirmary; Aural Clinical Assistant, Massachusetts Charitable Eye and Ear Infirmary.*

THE following case has been reported because of the extreme rarity of injury to the chorda tympani nerve during a paracentesis of the tympanic membrane.

The chorda tympani nerve leaves the facial nerve near the stylo-mastoid foramen, enters the tympanum at the base of the pyramid and arches forward and across, between the handle of the malleus and the long process of the incus to an opening internal to the Glasserian fissure. It is invested by a reflection of the lining membrane of the tympanum.

From the Glasserian fissure it descends between the two pterygoid muscles behind the middle meningeal artery and in close relation to the auriculo-temporal and inferior dental nerves and blends with the lingual branch of the inferior maxillary nerve.

The chorda tympani nerve has no control over the muscles of the tongue, but excites sensations of pain and taste, perceived chiefly at the side and the anterior two-thirds of the tongue. It also provokes secretion from the sub-maxillary, and in less amount from the parotid gland, according to animal experimentation.

Schulte, in 1885, reported a case of severance of the chorda tympani nerve during the removal of a polyp from the left middle ear with a sharp curette. A loss of feeling and taste of two-thirds of the tongue followed.

Wolf, in 1890, reported a case of injury to the chorda tympani nerve in a man, as a result of a paracentesis. Immediately after the incision the patient said he experienced a peculiar sensation, or rather, absence of sensation upon the left side of the tongue. The next day he declared that everything he ate was apparently without salt, and whatever came in contact with this particular side of the tongue tasted the same.

The writer's case was seen at the Massachusetts Charitable Eye and Ear Infirmary.

E. F., age 66. June 6, 1917.

*Diagnosis.*—Right otitis media, acute.

The usual paracentesis was done. She was seen again on June 8. There was a moderate discharge from the right ear, and upon wiping away the pus the paracentesis opening was seen. It was wide and a bit anterior. She complained of inability to taste and of a numb feeling over the right side of her tongue. A probe examination showed insensibility to touch. An otoscopic examination of the left tympanum showed a thin membrane, and the chorda tympani nerve as a faint line situated lower than normal. It is fair to assume that the nerve on the right was also lower than normal. This accounts for the injury.

The patient was then referred to the Nerve Department of the Massachusetts General Hospital. Dr. J. B. Ayer reported that tests with solutions showed no taste in anterior one-half to two-thirds of the tongue on the right, except, possibly, at the very tip. Taste was present on the right posterior one-third.

### Society Report.

#### THE NEW ENGLAND SOCIETY OF DERMATOLOGY AND SYPHILIS.

A CLINICAL session of the Society was held on Wednesday, Oct. 10, 1917, in Boston. The following cases were shown and discussed:

##### 1. SCLERODERMA.

Presented by DR. CUMMINS.

Female, age 18. Duration, two years. Started as a small "pimple" on right cheek and remained as such until four months ago, when process began to spread, and has gradually increased in size, and today area extends from just below eye to about one inch above ramus of jaw, and involves half the cheek. Central portion is finely scaling, and the edge shows typical violaceous color. The whole area is very firm to touch.

Patient first seen in clinic Oct. 6, 1917. Has received no treatment as yet. X-ray therapy suggested.

Dr. Towle said that the whole process suggested the action of some low-grade parasitic organism, and asked Dr. Cummins to take a culture or remove a piece of tissue at patient's next visit.

##### 2. DIAGNOSIS (?).

Presented by DR. BLAISDELL.

An Italian male cook, 34 years of age, presents a very striking cutaneous eruption of three months' duration. The scalp, face, neck, and the upper trunk are affected. The patient states that process started on the scalp and at first spread slowly, but during the last three or four weeks the progress has been distinctly more rapid. The primary lesion seems to be a pea-sized, sharply bounded, maculo-papule covered with a distinctly moist, yellow crust.

The striking feature of the eruption is the disposition of the lesions, which on the forehead make a continuous line like two joined, inverted "Vs," while elsewhere the distribution is circular, as one so often sees. In these circular areas there is no sign in the center that the disease has ever been present, for the skin is normal in all respects, show-

ing even no color-change at present. Apart from these striking, geographic figures, there are scattered lesions of irregular shape, but of the same inflammatory type.

The superficial nature of this whole process is noteworthy, and under the microscope there is nothing to be seen in the corium but the usual inflammatory changes about the superficial vessels and follicles. The rete, however, is edematous; the nuclei are pressed up against the walls of the cells, leaving vacuoles in their places, and the layer as a whole practically refuses to take the basic stains. Examining the scrapings in KOH, under the microscope, there is revealed a definite mycelial growth, which Dr. Rowland Thaxter of Cambridge pronounces an oidium.

The cultures made from these scrapings are positive, and present, on microscopic examination, the same organism just described. This case is certainly most unusual and is still under study.

### 3. FIBRO-SARCOMA.

Presented by DR. BLAISDELL.

Female, age 13. Patient first seen in clinic last July. Duration, several years. Process began on left upper arm. Now shows twenty to thirty lesions, most of which are pinpoint, pigmented spots. Many of them are infiltrated and the largest one is bean-sized. Two minute lesions on right arm.

Patient was admitted to Ward G in September, and Dr. Burns excised the large fibromata. The smaller ones have not been treated as yet.

*Pathological Report.*—Microscopic examination shows a tiny tumor infiltrating through corium, which is composed of undifferentiated spindle cells. There are occasional mitotic figures.

### 4. PRURIGO.

Presented by DR. CUMMINS.

Female, age 21. The disease has existed since early childhood. Face, arms, legs and trunk involved. Skin infiltrated, pink red, excoriated and papular. Marked pruritus complained of.

Child undeveloped. Disorders of menstruation. Several Wassermanns taken while in Ward G last year. Wassermanns vary from negative to moderately positive. Thyroid enlarged, fine tremor of hands, tendency to hyperhidrosis. Condition improved under KI. and ovarian extract.

Patient did not carry out treatment prescribed during the summer, and she returned to clinic two days ago with an acute exacerbation of process and was readmitted to Ward G.

### 5. PRURIGO.

Presented by DR. CUMMINS.

Female, age 14.

Has had the cutaneous outbreak since early childhood. Face and arms involved. Patient has been under treatment at the clinic for five months. When first seen in clinic, skin was markedly infiltrated, excoriated, pruritic and papular. Process always worse in summer. Has been in the ward for study.

Patient reacted to proteins and Dr. Turnbull is giving her injections of meat extracts at weekly intervals. She has shown a marked improvement. Skin is only slightly infiltrated, pruritus is diminished, and there is no papulation.

### 6. DERMATITIS EXFOLIATIVA.

Presented by DR. BLAISDELL.

Female, age 49.

Patient was born in Massachusetts and has always lived in this State. August 1, 1917, was admitted to Ward G.

Onset about nineteen months ago, beginning as an erythematous scaling patch on palm of left hand. Process soon spread to feet and rapidly involved the entire body. Since onset there have been series of eruptions of four to five weeks' duration, during which time the entire body is in a scaling condition, clearing up for three to seven days and then relapsing. Attacks of scaling are ushered in by severe headache, watering of the eyes, severe chill running from a few days to a week; nausea and malaise.

During periods of scaling, the entire body is involved, including the scalp, the hands and feet showing smaller but coarser scaling. There is also a darkening and shedding of the finger and toe nails. The feet have been covered with thick, yellowish crusts. Both hands and feet are edematous, the motion being markedly limited. At times the itching is intense, the entire body being hot and tense. At times the body has a sense of rawness. After an indefinite course, the scaling ceases, the skin becomes softer and is erythematous and presents yellowish pigmentation.

When first admitted to house, was given starch baths and Fowler's solution. Patient placed on the D.L. the first two weeks of September. Is now having powder treatment, and is showing slow but steady improvement.

### 7. DERMATITIS EXFOLIATIVA.

Presented by DR. BLAISDELL.

Male, age 62. Patient has been in the house since August. (Note made at time of admission.)

Duration, six months. The process is practically universal, the back, chest and abdomen being least involved. For three years has had a chronic psoriasis of arms and knees. Last April the skin became red and irritated, and in spite of using "unguine" and "poslam" the present trouble resulted. Arms and legs are swollen, red, and covered with thin scaling. The scalp presents fine, branny, dry scaling. Skin in general is dry, rather coarse, and of a reddish-brown color, being more pigmented in areas, notably the extremities.

The scaling is practically universal, being rather fine, dry, and branny over the face, neck, upper arms, trunk and thighs. The forearms and hands are more markedly involved, the scales being larger, thicker, and slightly greasy in character. The extensor surface of the legs presents scaling of an almost crusting nature, which is brownish yellow in color and quite adherent. The palms and soles are somewhat thickened. The dorsum of the feet is somewhat edematous. Itching is very troublesome.

Patient has much difficulty in keeping warm, but otherwise is fairly comfortable. During stay in house has been under powder treatment and has shown slow but steady improvement.

### 8. KERATOSIS FOLLICULARIS.

Presented by DR. BLAISDELL.

Female. Patient was seen by Dr. James C. White in 1889, who made a diagnosis of keratosis follicularis. Father similarly affected.

Patient first noticed eruption when five years old, at time of vaccination. States that the skin of face gradually became darker and rougher and thicker, and her mother used to scrub her to try to get it clean. During childhood process was limited to face, but started to spread when she was eighteen years old, and now involves the face, ears, scalp, neck, sternum, back, left thigh, and plantar surfaces of feet. Lesions are more marked on face. There, there is much thickening of the sebaceous follicles, considerable hyperpigmentation and roughening. The back, between the scapulae, shows similar lesions in the early stages of development.

Patient says process itches and tingles if she gets excited, and when she becomes heated blister-like lesions form under the skin. Cold weather does not affect her, but says she feels the heat more than other people.

Disease slowly progressive; no epithelial degeneration.

#### 9. MYCOSIS FUNGOIDES (?)

Presented by DR. BLAISDELL.

Female. Process started twenty-two years ago on face, and cleared up in six months. Since then has had occasional attacks lasting several months, for years. As she became older she began to have attacks every two or three months, lasting three to six weeks, being bedridden at times. Up to one year ago process was confined to face, but since then there has been universal involvement. There have been no remissions during the past year. Itching is very severe.

The hair is largely gone, the eyebrows are wholly gone, and the disease involves the whole of these areas completely. There is great infiltration. The body is covered with excoriating papules. Lesions are circular in outline and well demarcated. They are dusky red in color, for the most part with some yellow scaling, and the periphery is of a brighter red color.

The loss of hair in the scalp and the somewhat papillomatous ulcerations over the temples make one think of a possible premycosis condition.

Biopsy taken. No report as yet.

X-ray. Wash 2.

### Book Reviews.

*Occupational Therapy.* By GEORGE EDWARD BARTON, A.I.A. Director of Consolation House. New York: Lakeside Publishing Company.

In this small volume of ninety pages the author has gathered together various addresses which he has made and articles which he has written on the general subject of occupational therapy. Their titles are: A View of Invalid Occupation, Occupational Therapy, Occupational Nursing, Occupational Therapy and the War, Occupation and Auto-Inoculation in Tuberculosis, and the Movies and the Microscope, last being a discussion and explanation of the Simultaneous Cycle Motion Charts used to study methods of efficiency in manufacturing establish-

ments, by means of taking moving pictures of operators at work. Mr. Barton is a firm believer in the necessity of bridging the chasm between the time that a patient is discharged from a hospital and the time that he is in fit condition to return to his employment. In this interim comes a period of idleness and discouragement and corresponding delay in return to complete health that must be reckoned with by healers of the sick, if they are to perform their greatest service to humanity, and it is here that properly supervised occupation becomes efficacious. The author writes in a simple, conversational style, easily read and appreciated.

*Ligations and Amputations.* By A. BROCA, Professeur d'Opérations et Appareil à la Faculté de Médecine de Paris. Translated by ERNEST WARD, M.A., M.D., F.R.C.S. With 510 illustrations. New York: William Wood & Company. 1917.

A small volume of about 300 pages presenting what Prof. Broca considers still essential in teaching the technique of literature of arteries and amputation of limbs.

Mr. Ward mentions the fact that he has "simply translated the book as it is written, without any editing or footnotes."

While Prof. Broca in his preface acknowledges his very great indebtedness to Farabeuf, saying that he does not consider the present small volume an original work and suggesting that it is really his own abridgment, with, perhaps, modifications from his own experience of Farabeuf's teachings, he writes that he believes, while classical amputations may have been over-taught years ago, that some of the essential principles are now actually forgotten; and that today there are proportionately more poor stumps than there were years ago. Most of the drawings, which are excellent in simplicity and distinctness, are taken from Farabeuf.

In these days, in which we hear so much of the general question of amputation in relation to war surgery, a small manual of this sort is of distinct interest and value, particularly as it comes to us from France and contains information gathered by Broca in his experience in the present war.

*Gynecology.*—The Practical Medicine Series—1917. Edited by EMLIUS C. DUDLEY, A.M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and SYDNEY S. SCHOCHET, M.D., Instructor in Gynecology, Northwestern University Medical School; Adjunct Gynecologist, Wesley Hospital, Chicago. Chicago: The Year Book Publishers. 1917.

This useful little abstract of gynecological literature appears in its usual form. Naturally, there is even greater lack of foreign literature than a year ago. The sub-title is somewhat misleading—"comprising . . . volumes on the year's progress." There is much in each year's product that does not represent progress in gynecology. It may indicate progress on the part of the author, showing that he is in the way of learning something; but that is all. Thus, in addition to literature that shows progress, there are abstracted articles which might better be catalogued by title alone. However, as the method adopted in this volume indicates also what not to read, it renders a valuable service.

*Handbook of Gynecology*, for students and practitioners. By HENRY FOSTER LEWIS, A.B., M.D., Professor and Head of Department of Obstetrics and Gynecology in Loyola University School of Medicine; Chief of Obstetric Staff of Cook County Hospital; Fellow and ex-President of the Chicago Gynecological Society; late assistant Professor of Obstetrics and Gynecology in Rush Medical College (in affiliation with the University of Chicago) and ALFRED DE ROULET, B.Sc., M.S., M.D., Professor of Gynecology in Loyola University School of Medicine; Attending Gynecologist to the House of the Good Shepherd, and to St. Bernard's Hospital; Obstetrician and Chief of Staff of St. Margaret's Home and Hospital. With 117 illustrations. St. Louis: C. V. Mosby Company. 1917.

A new book is always looked into with interest. Does it contain new ideas? Perhaps this is too much to expect of a textbook, a "handbook" as this is called. Doubtless the size of a handbook depends on the size of the hand: Veit's *Handbuch* is in seven volumes. This book by Lewis and deRoulet is designed chiefly for the medical student, not for the specialist, and, regarding gynecology from the point of view of the student as a minor subject, consists of one small volume.

The classification follows "the lines of pathology as much as present knowledge will permit." By this is meant that lesions of one apparent kind are treated under one heading: for example, all cysts of the genital system are discussed in one chapter. This classification has only a certain informational advantage and takes away emphasis from a more important point of view.

Even in a new book it is difficult to escape from the past, and occasional bonds are visible. The chapters on Asepsis in Gynecology, Care of Patients before and after Operation, and Anesthesia might well be omitted, not because they are unimportant, but because the student should

receive formal instruction in asepsis; for example, once for all in the course in surgical technic, and in anesthesia in its appropriate place, which is not in the specialty of gynecology.

Too much emphasis is laid on the view which regards prolapse of the uterus as a hernia. The analogy is not so exact as the authors would have the student believe. It is helpful to consider the likeness to a hernia, but more helpful to consider the unlikeness. Part of the cervix of the uterus is actually a part of the pelvic floor.

The book, however, aims to "supply the knowledge of principles." This it does, for the most part clearly and succinctly and with excellent judgment. The illustrations are clear and the selection good.

*The Principles of Gynecology*, for students and Practitioners of Medicine. By W. BLAIR BELL, B.S., M.D., Lond., Gynecological Surgeon, Royal Infirmary, Liverpool; Lecturer and Examiner in Clinical Gynecology in the University of Liverpool. Second edition. New York: William Wood & Company. 1917.

This second edition contains few changes from the first of seven years ago, chiefly because of the difficulty experienced by the author in finding time in this period of stress for a thorough revision.

The arrangement of the subject-matter is unusual though not new with this work. For example, malformations of the whole genital system are considered in one chapter, injuries of all parts of the system in another, infective and parasitic diseases in a third, benign neoplasms in a fourth, and so on. This method is characterized as the most "scientific." But at present no method of classification is best adapted for all conditions. "Scientific" should mean, based on the principle of cause and effect. Thus all forms of infection of the genital system caused by the gonococcus might well be considered in one chapter. But no especial illumination is thrown on malignant growths by presenting cancer of the vulva, of the cervix and of the ovary consecutively. That is, in the present state of our knowledge, a scientific classification of tumors is not possible; and it is a convenience, from the clinical point of view, in the presence of some obvious pathological condition of the cervix, for example, to consider the various possible diseases of the cervix which this particular condition may be.

The vigorous style of the author is characteristic, and the fundamental principles of gynecological science and practice are stated concisely and clearly.

*Diseases of Women*. By HARRY STURGEON CROSSEN, M.D., F.A.C.S., Associate in Gynecology, Washington University Medical School,

and Associate Gynecologist to the Barnes Hospital; Gynecologist to St. Luke's Hospital, Missouri Baptist Sanitarium and St. Louis Mullanphy Hospital. Fourth edition, revised and enlarged, with eight hundred engravings. St. Louis: C. V. Mosby Company. 1917.

This deservedly popular book now appears in its fourth edition. The changes are not numerous nor are they radical, but they are in the way of improvement. A few microphotographs have been included and a new chapter has been added on the endocrine glands. There is still, however, too much space devoted to operations for a work of its avowed limited scope. The press work shows a distinct improvement and will increase its already well recognized usefulness.

*Surgical Contributions. From 1881-1916.* By RUTHERFORD MORISON, M.B., F.R.C.S., Edin., F. R. C. S., England. Consulting Surgeon Royal Victoria Infirmary, Newcastle-on-Tyne; Professor of Surgery, Durham University; Examiner in Surgery, Liverpool University. Volume I, General Surgery; Volume II, Abdominal Surgery. New York: William Wood & Company. 1916.

These two volumes are not described as "text-books," and yet, considered as examples of surgical practice, and as frank commentaries and criticisms of surgical procedures, they may well be considered textbooks of modern surgeons. Mr. Morison has been most frank in relating his own mistakes, and is equally determined in maintaining his own opinions. He in reality presents a history of surgery since 1881, as developed in the best English school. He begins with the Lister dressing and the carbolic spray, which he learned from Sir Joseph himself; and even in 1916 he is evidently still a believer in antiseptics.

These two books contain case histories, lectures, discussions, observations, suggestions and end results in really enormous numbers; everywhere is brevity, directness and simplicity. As might be expected, he describes many unusual cases: enormous calculi, one weighing one pound and six ounces; another, quarter of a pound; enormous tumors, splenectomies, gastrectomies and hysterectomies, when these operations were rare. Consideration of his fatal cases is given more than once; and parallel to his original papers are comments made by him now in 1916, with the same frankness that his early writings possess.

The so-called Talma-Morison operation he devised, executed and reported years before he

had heard of Prof. Talma's proceedings; his technic differs somewhat from that usually followed in the United States.

The reviewer warmly recommends the volumes to the surgeons of America. In every way, they repay the attentive reader.

*Three Clinical Studies in Tuberculous Predisposition.* By W. C. RIVERS, M.C.R.S., D.P.H. London: George Allen and Unwin, Limited.

This book consists of 272 pages, with numerous illustrations and an elaborate protocol, giving the details of 500 cases, by which the author endeavors to show that ichthyosis, squint and nasal abnormalities are predisposing factors toward the development of tuberculosis.

Concerning the first of these conditions, ichthyosis, he believes that the "incidence of ichthyosis may entail liability to consumption," and that "ichthyosis may be regarded as a sign of predisposition to consumption."

In regard to squint, he states that "squint probably merely indicates in certain instances the presence of predisposition to tubercle—clinical pulmonary tubercle—without itself forming an active constituent of a phthisical diathesis. Such active constituent may be some associated malformation, of which squint is the stigma."

The greater part of the book is devoted to a consideration of the relationship of consumption to nasal abnormality. From a study of the literature bearing on this subject, he concludes that, "every writer, save one, either maintaining or being impressed with the likelihood that non-tuberculous, intranasal abnormality is a fairly common predisposing cause of tuberculosis." In discussing this subject he calls attention to the apical collapse induration, which is well known to be associated with certain nasal abnormalities.

The writer's general argument, i.e., that any disease which tends to reduce the resistance and the nutritive processes of the human body, and any disease which tends to interfere with the respiratory processes, may be a predisposing factor in consumption, is a perfectly sound one. Any one, however, might with just as good reason as the present writer, select three entirely separate conditions and make a careful study of the cases of tuberculosis which occur coincident with such conditions, and come to the same clinically sound conclusions as does the author of this book. The reviewer, therefore, while admiring the careful study of the literature, and the painstaking detail with which the author has taken up the subject of ichthyosis, squint and nasal abnormality as related to tuberculosis, is quite unwilling to believe that any one of these conditions renders the person more prone to tuberculosis than innumerable others that might be mentioned.

## THE BOSTON Medical and Surgical Journal

Established in 1812

An independently owned Journal of Medicine and Surgery published weekly under the direction of the Editors and an Advisory Committee, by the BOSTON MEDICAL AND SURGICAL JOURNAL SOCIETY, INC.

THURSDAY, FEBRUARY 14, 1918

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An editor will be in the editorial office daily, except Sunday, from twelve to one p.m.

Papers for publication, and all other communications for the Editorial Department, should be addressed to the Editor, 126 Massachusetts Ave., Boston. Notices and other material for the editorial pages must be received not later than noon on the Saturday preceding the date of publication. Orders for reprints must be returned in writing to the printer with the galley proof of papers. The Journal will furnish one hundred reprints free to the author, upon his written request.

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### WAR NEPHRITIS.

THE *British Medical Journal* has drawn attention to a certain lack of probability in the view that war nephritis is a new form of kidney disease, or even a modified form of disease previously known. The whole question of causation is, indeed, difficult; and not a few experienced observers are coming to the view that war conditions have simply obscured the pathology of nephritis without adding a positively new element. What these controlling conditions are is not fully established, but it is evident that they are closely associated with the conditions which produce a high blood pressure and a cardio-respiratory complex, with inadequate or inferior food, with excess of protein in the diet, with the occupations of soldiers in the trenches, and with the general circumstances of exposure, overcrowding in billets, and fatigue, or *surmenage*, as the French call it. In fact, the French physicians, for example, Boulanger in the *Paris Médicale* lately, find the etiology in this general state of affairs, which must be

borne in mind as always lying in the background, before we seize exclusively upon some unknown micro-organism as the beginning and end of the problem. They seem content with this natural explanation, and define war nephritis as only a manifestation of congestion *a frigore*.

In connection with the theory of a toxic or microbic origin, it is significant that animal experiments—the inoculation of guinea pigs with carefully drawn specimens of urine—have proved negative. An ultramicroscopic organism might disclose itself in this way. On the other hand, such an organism would probably produce characteristic lesions in the kidney. The most recent knowledge on this point, in the paper of Captain J. Shaw Dunn and Colonel J. W. McNee, in the *British Medical Journal* of December 8, 1917, certainly renders this view highly probable. Their plates show that in soldiers who have died in the acute stages of war nephritis, the lesions in the kidney are limited to the capillary blood vessels of the glomeruli. These lesions have many appearances of novelty, and, so far as they may be judged in this way, are evidences of the invasion of the kidney by bacteria or their toxins.

One difficulty in accepting this view has not been noted. It does not account for the incidence of the disease. Dunn and McNee observed most of the cases in the infantry; cavalrymen and artillery men are affected less often, while officers seldom have war nephritis. They note, also, that the disease does not occur in the same ratio in the civilian population of the same area. How are these facts to be reconciled with the germ theory? It seems to be still further weakened by the statement that war nephritis is not due to exposure to variations of temperature. Season and climate, it is said, exert no appreciable influence. This idea is evidently wholly at variance with the view of French and Italian observers, that the principal factors are environmental. If this type of nephritis is really due to infection, it would seem more natural to believe that cold and bacteria were jointly responsible.

Whatever may be the cause, the problem of war nephritis has some extraordinary ramifications which suggest infection. It begins suddenly with dyspnea, and the pulse and temperature curve recall pneumonia. In fact, the diagnosis of pneumonia has been made erroneously in cases that turned out to be war nephritis. Moreover, there is some relation be-

tween it and youth. It appears to attack young soldiers especially. It is curious that older men with some arterial changes, and even a history of renal disease, occupy a relatively favorable position. These facts, if fully established, indicate a relation between war nephritis and orthostatic albuminuria, and in both recovery and disappearance of albumin follow rest and proper diet.

Lastly, the respiratory symptoms naturally suggested, besides infection, poisoning by asphyxiating and other gases. The fact that the peculiar disabilities of trench nephritis are more widely distributed through the infantry and the rank and file, seems to lend an air of great probability to this supposition. But there is another side to the toxic theory which has not been noticed. One of its features, which has not received sufficient attention, is the effects of a series of vaccinations. Bacteriologists are alive to the possibilities of anaphylaxis, and it is not too much to say that war nephritis may be a manifestation of this kind. A Russian pathologist, Stefanski (*Russki Wratsch*, 1917, p. 89), has adduced a number of instances of albuminuria after antityphoid and antistreptococci inoculations. The whole question cannot be discussed here, but it is reasonable to suppose that the frequency and variety of modern vaccination among troops might subject the kidneys and the circulation to a considerable strain. There is nothing surprising to the bacteriologists and worker in animal inoculation in this aspect of the case. The results of animal experiments show that, if an injection of antityphoid, anti-cholera, or anti-dysenteric vaccine is repeated after a short interval, the phenomena of anaphylaxis appear. It may be inferred, according to Kraus and Doerr, that the kidneys in man will react in the same manner, though not, perhaps, in the same degree. We do not suggest that a substantial proportion of cases of war nephritis are due to vaccination, but the question of its origin cannot be answered relevantly without an examination of all the facts.

#### REPORTS OF HOSPITALS FOR THE INSANE.

LOOKING over a number of reports of state hospitals for the insane, the mind is bewildered by

the immense variety of these documents. Here we have a report which sounds like the business statement of a modern farm; there we have a collection of psychological documents; and in another place we feel as if we were having a chat with a gentleman showing us over his establishment. One report will give the number of manic-depressives admitted during the year as sixty per cent., another will give fifteen per cent., and still another two per cent. Many other discrepancies might be pointed out, but these are sufficient for exemplification. For the earnest student of psycho-pathology such a state of affairs is puzzling and exasperating; the modern superintendent of an insane hospital, who wishes to obtain a broad view of the condition of the insane in the various other hospitals in other states, is baffled.

There is a reason and a remedy. The reason is, that state hospitals for the insane are dependent upon an annual appropriation, whose disbursement is scrutinized closely, and the superintendent is expected to eke out his finances by developing to the utmost his natural resources; every acre of land must be farmed or made into pasture. It is of more moment to the board of directors that enough meat was raised during the year than that the recovery rate of dementia precox is falling. The hospital superintendent must be a good executive and business man first, then a good psychiatrist if he has time. Nor can the obvious remedy be applied—to put the administrative affairs of the hospital under one head, and the medical under another. Wherever such a scheme has been tried it has come to grief.

What, then, is the remedy? We want, first of all, a medical head for such a hospital who has the ultimate disposal of all administrative affairs. Under him should be two distinct branches, the administrative and the medical. The former, divided into many parts, should be under the head of a good business man, whose duty it is to develop the resources of the hospital to the utmost, but never at the cost of injury to the patients' welfare, and always subject to the approval of the medical superintendent.

Each hospital should be required to publish two distinct reports, one by the steward and the other by the medical staff. The medical report should be really illuminating. It should give information about the admissions of the year, comparing them with previous years. It

should abstract the original work done during the year by the members of the staff; it might even publish one paper by each member, if the staff is not too large. Cases should be classified according to a uniform standard, say the one adopted by the American Medico-Psychological Association. Any rare neurological or psychiatric cases observed during the year should be noted, so that a psychiatrist studying a particular subject would know where to apply for records of apposite cases.

In short, the annual report of the modern hospital for the insane should be a real aid to the study of psychiatry. It should report the progress made by that hospital during the year; and the student of psychiatry, having before him the annual reports from all the states, would then be able to get a bird's eye view of the year's progress in caring for the mentally ill; he would be able to realize, with some accuracy, whether such a disease as dementia precox is really on the increase or not, and not be confused by administrative data of economic importance rather than psychiatric relevancy.

#### THE VENEREAL DISEASE PROGRAM IN MASSACHUSETTS.

In another column of this issue of the JOURNAL is published the fourth and last of a series of special articles on the venereal disease program in Massachusetts. The first of these, on "Venereal Disease Reporting," by Dr. Eugene R. Kelley, chief of the Division of Communicable Diseases of the State Department of Health, was published in the JOURNAL on January 17 and received editorial comment in the same issue. The second, published in the issue of January 31, was by Dr. Merrill E. Champion, and dealt with the aspect of the problem involved in measures for the extension of facilities for diagnosis and early treatment; and the third, by Dr. Kelley, published on February 7, dealt with repressive measures. The present and concluding instalment, by Dr. Lyman A. Jones, director of the Division of Hygiene of the State Department of Health, is concerned with the educational aspects of the subject.

Much has recently been written concerning the problem of venereal diseases among armies in camp and in the field; but in the last analysis the solution, or rather abolition, of this problem, rests upon the more fundamental one of condi-

tions existing in the civil community. As in the case of alcoholism, it is primarily through the medium of widely diffused popular education that evils of this sort can most effectively be reached and combated.

In connection with Dr. Jones's contribution and the second paper by Dr. Kelley, attention may be drawn to a bill (House No. 213) accompanying the recommendations of the State Department of Health, now pending before the Massachusetts General Court. This act, relative to the sale and distribution of certain drugs, is aimed primarily at the surreptitious drug-store treatment of venereal diseases, and may be regarded as an attempt to secure for the public the most effective possible treatment for this group of ailments. The text of the bill is as follows:

"Section 1. It shall be unlawful for any person, firm, or corporation to sell, furnish, give away or deliver any drugs, medicines or other substances to be used for the cure or alleviation of gonorrhea, syphilis, or other venereal disease, except upon the written order of a manufacturer or jobber in drugs, wholesale druggist, registered pharmacist actively engaged in business as such, physician registered under the laws of this Commonwealth, or an incorporated hospital through its superintendent or official in immediate charge, or upon the written prescription of a physician registered under the laws of this Commonwealth, bearing his legal signature and his office address.

The prescription when filled shall show the date of filling and the legal signature of the person filling it, written across the face of the prescription, and shall be retained on file by the druggist filling it for a period of at least two years. No order or prescription shall be received for filling or filled more than fourteen days after its date of issue, as indicated thereon.

The prescription shall not again be filled, nor shall a copy of the same be made except for the purpose of record by the pharmacist filling the same, and it shall at all times be open to inspection by the officers of the state department of health, the board of registration in pharmacy, the board of registration in medicine, and the authorized agents of said department and boards.

Section 2. Any person who for the purpose of evading or assisting in the evasion of any provision of the act shall falsely represent that he is a manufacturer or a jobber in drugs,

wholesale druggist, registered pharmacist or registered physician or superintendent or other official immediately in charge of any incorporated hospital, or who, not being a registered physician, makes or alters a prescription or written order for any drug, medicines or other substances to be used for the cure or alleviation of gonorrhea or syphilis or other venereal diseases, or knowingly issues or utters a prescription or written order falsely made or altered, shall be deemed guilty of violation of this act."

Section 3 provides that any violation of this act shall be punishable by a fine of not less than \$5.00 for a first offense, not less than \$100 for a second offense, and by fine and imprisonment for not less than thirty nor more than ninety days for any subsequent offense.

The passage of this commendable act is earnestly to be desired and advocated by the medical profession.

#### MEDICAL NOTES.

**MENINGITIS IN SOUTH CAROLINA.**—In an effort to check the epidemic of spinal meningitis in Columbia, S. C., the health department has ordered the closing of public schools, churches, motion picture theatres, and other public gathering places. Sixteen cases of the disease have been reported.

**HEALTH OF BELFAST.**—Among the Irish notes in the *British Medical Journal*, recently appeared the following item with reference to the public health of the city of Belfast:

"At a meeting of the Belfast city council, held on January 2, it was reported that during 1917 there were registered 6541 deaths, as compared with 6496 in the preceding year. The death rate, calculated (apparently) upon a population of 394,000, was 16.6 per 1000, which is the lowest on record, the figure for 1916 being 16.7. The zymotic death rate was 1.1 (414 deaths), and was also the lowest on record, the rate being 1.7 (650 deaths) in 1916. The disappointing features of the health of Belfast last year were: (1) that the deaths from typhoid fever (though they only totalled 41 out of 277 notifications) are more numerous than they have been since 1908; (2) that the infantile mortality rate has risen to 128 per 1000 births, as compared with 113 in the previous year; and (3), worst of all, the high tuberculosis

mortality rate. There were 929 deaths from pulmonary tuberculosis, giving a rate of 2.4, while, in 1916, the deaths were 830, with a rate of 2.1. This means that 99 more people died of pulmonary tuberculosis in 1917 than in 1916, and since 1906 it is the highest number recorded. If the explanation given, i.e., that this high Belfast pulmonary tuberculosis rate is due to the number of soldiers who, on being discharged from the army, came home to die of consumption, be true, it conveys a grave impeachment of the efficiency of medical examination for the army, and it is really hard to believe that almost a hundred discharged soldiers should have actually died of pulmonary tuberculosis in 1917 in Belfast. During the last two years the Belfast Corporation have expended something like £70,000 in working a tuberculosis scheme, with the result, as a member of the City Corporation pointed out at the meeting on January 2, that there is a largely increased tuberculosis death rate. Apparently, tuberculosis is not to be got rid of as easily as was thought, at least, by domiciliary and sanatorium treatment."

**AMERICAN COOKED FOOD SERVICE.**—That new social conditions are arising out of the food and labor situation, is shown by the response of the public to the new food service plan being established to deliver cooked meals to homes.

The demand for this service comes from the better class of apartment houses and separate homes on the upper West Side (New York City), within motor radius of the first station at 213 West 79th street, but the founders are making every endeavor to place the low-priced service within the reach of the industrial population.

The men and women who have interested themselves in the American Cooked Food Service are more than gratified by its results. Included on the Board of Directors are Miss Jessie H. Baneroft, president; Mr. Adolf Lewisohn, vice-president; Dr. Belle J. Macdonald, treasurer; Mrs. William G. Shailer, secretary; Mrs. Herbert L. Satterlee, Mrs. Eger-ton L. Winthrop, Jr.

The demand for this service has been such that two weeks before its opening day (February 1) the first station was registered almost to its full capacity of 500 persons per day.

Other stations are in contemplation, so that all parts of the city may have hot, well-balanced

meals, fulfilling all the requirements of the Food Dictator and endorsed by him, delivered to the homes.

**PREVENTION OF VENEREAL DISEASE IN NEW YORK.**—The Department of Health, in its efforts to control the spread of venereal disease, sends out the following notice:

Despite frequent explanation of the Health Department's attitude with respect to venereal diseases, a large number of physicians still misrepresent the work of the venereal clinics, and voice their antagonism to what they allege is the Department's unwarranted treatment of venereally infected individuals who are well able to pay for treatment.

Let us therefore repeat, the so-called "venereal clinics" conducted by the Department of Health *do not treat* patients. In response to announcements posted by the Department of Health in the toilets of saloons, ferry houses, and railway stations, persons having venereal disease come to the Department's clinics for confidential advice. They meet the "medical adviser," who goes into the history of the case, examines the patient, takes blood specimens for serum test and smears for microscopical examination, explains the nature of the disease, its mode of spread, and the necessity for prompt and proper treatment by a competent physician. The patient is warned against self-medication, treatment by druggists and by advertising "specialists." He is told to consult and trust his private physician, or, if obviously unable to pay a private physician, he is referred to one of the recognized dispensaries for treatment.

Under no circumstances is the patient treated by the medical adviser, and every effort is made to have the patient place himself under the care of his family physician. In accordance with the law, every patient applying at the clinic receives a pamphlet of instructions regarding the nature of venereal disease, mode of transmission, precautions to be taken, necessity of prompt and adequate treatment, importance of laboratory tests in determining infection, and cure, etc.

**DIAGNOSTIC FACILITIES AT THE DISPOSAL OF PHYSICIANS.**—Physicians are urged to make greater use of the diagnostic service offered to them by the Department of Health of New York City. These include serum tests for the Wassermann reaction in syphilis, complement-fixation tests for gonococcus

infection and the microscopical examination of pus and other discharges. In order to assist in the diagnosis of doubtful cases, the Division of Venereal Diseases is prepared to make and examine by dark field illumination, microscopical smear preparations from cases of suspected syphilis. Physicians who choose to refer patients who are unable to pay fees of private laboratories, should furnish them with a letter explaining the nature of the service desired and direct the patients to "The Medical Adviser," Room 207, 139 Centre Street, Manhattan, hours from 9 to 11.30 a. m. daily. A prompt report of the adviser's findings will be sent to the attending physician referring the patient.

**COÖPERATION WITH AMERICAN PUBLIC HEALTH ASSOCIATION.**—At the recent meeting of the Association of Life Insurance Presidents, held in New York City, the following resolutions were adopted:

*Whereas*, The improvement in public sanitation through the efforts of local health boards is one of the most important and valuable results achieved in the field of preventive medicine; and the life insurance companies should be and are peculiarly interested in the progress and success of all movements which tend to prolong the term of human life; and

*Whereas*, The American Public Health Association is engaged in the work of promoting the enactment and enforcement of more scientific and effective health laws, and of giving expert advice upon methods of health board organization and health law administration; now therefore be it

*Resolved*, That the life insurance companies of the United States are earnestly recommended to become members of the American Public Health Association, and that their representatives be encouraged to give personal aid to all efforts intended to improve local sanitary conditions.

**CAMPAIGN FOR NEW MEMBERS OF TUBERCULOSIS ASSOCIATION.**—"The Executive Committee of the National Tuberculosis Association has announced a campaign for 5000 new members. This drive was launched on February 4, 1918, and will continue until March 11.

The reasons that have influenced the National Association to start the campaign at this time may be briefly summarized as follows:

First. The membership of the National Association at the present time is only about

2500. If the Association is going to be of the greatest usefulness in promoting interstate and federal programs for the control of tuberculosis and in assisting local and state organizations in their work, it must have a wider representation and more money.

Second. Demands upon the National Association for field and other special lines of service at the present time are so overwhelming that they cannot possibly be met unless its budget is increased from 50 to 100 per cent.

Third. The special demands upon the National Association because of the war have greatly increased the necessity for expansion of its scope of work. If these opportunities are to be realized, the most assured way of financing the work should seem to be by an increased membership.

Fourth. The rapidly developing anti-tuberculosis movement has enlisted a large and increasing number of men and women in every part of the United States. The National Association believes that from this group it will be a comparatively easy matter to recruit at least 500 members. It is the hope of the Executive Committee that the membership of the National Association will soon reach at least 10,000."

#### WAR NOTES.

AN EXHIBIT FOR THE SOLDIER.—"The National Association for the Study and Prevention of Tuberculosis is preparing an exhibit on the general subject, 'The Health of the Soldier,' for use in the military camps in the United States and France. The exhibit will be shown in co-operation with the Educational Bureau of the War Work Council of the Y. M. C. A. in all the Association buildings. At least twenty different sets will be prepared.

The exhibit will be in fifteen panels of three sets of five, and will aim to stress the positive side of health. The first series of five panels will be headed 'Diseases are spread by close contact,' and will take up coughs and colds, measles, pneumonia, tuberculosis and syphilis. The second set will be headed, 'Diseases are prevented by knowledge and care,' and will portray how by covering the mouth in coughing and sneezing and by care in spitting, many dis-

eases can be prevented. The third series will be headed, 'Fitness for Fighting,' and will emphasize the need for fitness and the patriotic aspects of being fit to fight.

James Daugherty, a well-known artist, has been engaged to draw the color illustrations for the panels. These panels will be two-thirds illustration, and will portray as accurately as possible some interesting phases of army life.

In conjunction with the exhibit the National Association will also issue a series of stock lectures on tuberculosis and health, and a special circular for popular distribution in the camps, entitled, 'Red Blood.'"

#### BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending Feb. 2, 1918, the number of deaths reported was 262, against 307 last year, with a rate of 17.42, against 26.73 last year. There were 32 deaths under one year of age, against 43 last year.

The number of cases of principal reportable diseases were: diphtheria, 98; scarlet fever, 52; measles, 115; whooping cough, 22; typhoid fever, 2; tuberculosis, 73.

Included in the above were the following cases of non-residents: diphtheria, 9; scarlet fever, 6; measles, 2; tuberculosis, 5.

Total deaths from these diseases were: diphtheria, 10; measles, 2; tuberculosis, 27.

Included in the above were the following non-residents: diphtheria, 3; tuberculosis, 1.

THE MASSACHUSETTS HOMEOPATHIC HOSPITAL.—The annual report of the Massachusetts Homeopathic Hospital for the year ended December 31, 1916, records an ever-increasing number of patients who yearly visit this institution for medical treatment. The main hospital cared for 8305 patients, the John C. Haynes Memorial for 1346, the Sunny Bank Home for 186, Nash House for 86 and the Out-Patient Department for 14,443 patients. New ambulances have been purchased for both the main hospital and the contagious department, and an improved x-ray machine purchased and installed at the main hospital. The training school graduated 36 pupils and accepted 64. A new clinic for venereal diseases has been opened.

**HOSPITAL BEQUEST.**—By the will of the late Mary Jewett Bishop of Cambridge, Mass., the Cambridge Hospital receives a bequest of \$10,000 and the Cambridge Anti-Tuberculosis Association receives \$2000.

**COMMONWEALTH MILITARY EMERGENCY HOSPITAL.**—At the formal opening of the Commonwealth Military Emergency Hospital, attended by the Lieutenant-Governor, the Massachusetts Public Safety Council and Army and Navy officers, an interesting demonstration was given of the manner in which the hospital can be operated to meet the demands of an emergency.

"Lieutenant Colonel William A. Brooks, chief surgeon of the State, who conceived the idea of the hospital, had general supervision of the demonstration. A major from each regiment of the State Guard and several nurses, in charge of Miss Elizabeth Beden, attended to the reception of the 'patients' in the different wards. One-half of the Ambulance Company, under Captain Cunningham, had been called out and looked after the ambulances, of which twelve were used. Two quartermasters, Captains Hyde and Lapham, from the State Guard, also were on duty.

One of the wards was made up with beds complete, simply to show what the wards will look like when in apple-pie order, so to speak. The other wards that were used had to be gotten ready the same as for an emergency. Mattresses were rushed in ambulances from the storage rooms and were put on the bedsteads, then the sheets were put on and the beds 'made up.' It will be impracticable to keep the beds ready all the time, owing to the dampness due to condensation under the glass roof.

The ambulances were driven in from the rear entrance to the hall and carried their patients direct to the wards, where they were unloaded (perfectly healthy men representing the patients in this instance) and after an examination were taken to the operating room. Everything was carried out as if the patients had been real sufferers from injuries in an explosion, a fire or some other disaster, and the speed with which the victims were handled elicited praise from the spectators."

## The Massachusetts Medical Society.

### DISTRICT CORRESPONDENTS.

*Berkshire*, A. P. MERRILL, M.D., Pittsfield.  
*Bristol North*, ARTHUR R. CRANDELL, M.D., Taunton.  
*Bristol South*, EDWIN D. GARDNER, M.D., New Bedford.  
*Essex North*, T. N. STONE, M.D., Haverhill.  
*Essex South*, H. P. BENNETT, M.D., Lynn.  
*Hampden*, LAURENCE D. CHAPIN, M.D., Springfield.  
*Hampshire*, E. E. THOMAS, M.D., Northampton.  
*Middlesex South*, WILLIAM C. HANSON, M.D., Belmont.  
*Norfolk South*, DANIEL B. REARDON, M.D., Quincy.

### NOTES FROM THE DISTRICT SOCIETIES.

**FRANKLIN DISTRICT MEDICAL SOCIETY.**—The following is a copy of a note suggested to be sent from secretaries of District Medical Societies to members who have entered the federal service.

*Dear Doctor:* You have answered a call to patriotic service, have enlisted under the government for military and humanitarian duties and are preparing for or fulfilling the various commissions for which experience, training, and natural capacities fit you. You were our professional neighbor in this hilly rural section, where the aged are as plentiful as the youth. The vigorous youth of a great country have been mobilized to stay the ravages of a social, a political, a national disease that threatens democracy,—homes, hopes, nations, the stability of institutions,—for life and strength and character of such are dependent upon the healthy interplay, and respect for the constructive service of the individual and the coöperative worker. Such assemblage of virile young men as surround you must be impressive and stimulating. You minister to their physical and mental health. You have also the privilege of moral and spiritual leadership. With all the liabilities incident to army life, the stress, the strangeness, you have a power for influencing the individual, much to be coveted; you have a part in the weaving of a quality of human fabric that protects its own life and interests, and those dependent upon it, from the organization of another human fabric representing a nation which has been greedily assuming a power and influence out of accord with the ideals of the times, progress and true brotherhood. Would to God there were a way of staying the perils, the frightfulness, the destruction of life and limb from the device, the momentum, the enginery—the fruit of conceptions of national lust—in some other way than

by all this sacrifice. Our society voted at its last meeting to look after your membership dues while you are in the service and of course will be pleased to hear from you in any way. To keep intelligently in touch with you will be a privilege for us and we hope a help and service to you, and as secretary for the unexpired term, I desire to convey in part expressed wishes of our members.

PAUL W. GOLDSBURY, *Treas.*

### Miscellany.

#### THE MASSACHUSETTS VENEREAL DISEASE PROGRAM. (PART IV.)

BY LYMAN ASA JONES, M.D.,

*Director, Division of Hygiene, State Department of Health.*

(Continued from page 209.)

VENEREAL disease reporting, measures to provide increased facilities for diagnosis and treatment, and repressive measures, phases of the Department's program already discussed in these columns, look toward the more immediate control of, and prevention of venereal disease.

Educational measures, the final phase of the Department's program, though of value in the work to be immediately undertaken, look rather to the future. They constitute not the least important part of the program, since the success of all other measures will be greatly increased by the active support of public opinion, and public opinion will not be well directed unless it is intelligent, founded upon knowledge of the facts.

The plans worked out for the reporting of the disease are in themselves educational, and provide especially for the instruction of the patient suffering with gonorrhea or syphilis, since each physician is required to give the patient a circular explaining what the disease is, what its consequences are, explaining the importance of proper treatment and giving necessary detailed directions for preventing the further spread of the disease.

The proposed clinics, scattered throughout the state, for which arrangements are already well advanced, will also serve as educational centers, where information may be secured and where approved forms of treatment may be demonstrated. The clinics will also serve as agencies through which arsphenamine, the Department's substitute for salvarsan, will be distributed.

Small framed placards, giving information concerning venereal diseases and indicating clinics where advice and treatment may be obtained are in preparation. It is the intention that such placards shall be posted in public toilets

or other suitable places in the vicinity of the clinics just mentioned.

For general distribution, the Department has prepared a small pamphlet, setting forth plainly and with authority, what the venereal diseases are, their importance as a public health problem, their consequences and how they may be avoided. Copies of this pamphlet may be had upon request.

Knowledge of this subject may also be spread in the community through lectures before suitable audiences. For the benefit of the public it is not necessary that such lectures go into details in many instances, but statements as to what these diseases are, what their dangers and consequences, may properly become matters of common knowledge. The department is prepared to supply to a limited extent, lectures in which this topic will be considered.

As a part of their regular work, local boards of health may properly engage in health educational work. Each board of health should be prepared to furnish correct information about health matters or to direct those who inquire to trustworthy sources of information or advice. This includes information regarding venereal diseases.

Work of this character could well be provided through a physician to the board of health, whose appointment in cities is authorized under the present law.

Educational measures for the prevention of venereal diseases should include also the instruction of college and normal students as to the relation of these diseases to public health, and the dangers which they threaten to community health.

It will mean much for the campaign against these diseases when the opinion of the community will permit, in newspaper or magazine, a proper consideration of these venereal diseases, not in a morbid or prurient manner, but merely on the same plane as the discussion of fire dangers, accidents in industry, or any other serious problem which threatens the public welfare, which, after all, is nothing but the welfare of each individual constituting the public.

#### THE BRITISH MARRIAGE RATE AND THE WAR.

THE London *Lancet* for November 24, 1917, contains the following interesting account of the rise and fall of the marriage rate in the United Kingdom during war times.

"The Presidential address of Sir Bernard Mallet, the Registrar-General of Births, Deaths, and Marriages, delivered on Tuesday last at the Royal Statistical Society, dealt in a valuable manner, because of his clearness, with those large questions of racial advance or decline which may dictate the fate of the world at the close of a devastating war. On the subject of the marriage-rate of this country he was partic-

ularly interesting. For England, Scotland, and Wales he indicated that a fortunate rise in marriage-rates has taken place, though this rise appears to have been in continuation of one which had already become apparent before the war broke out. The marriage-rates were not, as a matter of fact, increased at first by the outbreak of war, but at the beginning of 1916 occurred a sudden rise, due to marriages contracted by young soldiers in an army which was rapidly nearing its present immense size. The rise was not continued throughout the year, but has had its effect. Sir Bernard Mallet's summary of the actual figures shows that 200,000 people in England and Wales have been married between August, 1914, and June, 1917, who in the ordinary course of events would not have been married; the corresponding figure for Scotland he puts at 8000, while in Ireland the number of marriages has remained fairly constant, not appearing to be materially greater than the normal in the period from August, 1914, to June, 1917. These British figures Sir Bernard Mallet finds to be in complete contrast with those prevailing in Germany, and for the contrast he gives two reasons. The first is that an enormous German Army, being thoroughly prepared, rushed on to foreign soil at the outbreak of war, while the bulk of the British Army remained for some time under training at home, so that the men enjoyed opportunities for marriage that were largely denied to the German Army. The rise in our marriage-rates being practically dependent upon the size of the Army, the second reason for its occurrence has been the payment of substantial separation allowances and pensions. The effect which has already been produced by the war marriages, or rather by the abnormal number of marriages which took place in the year ending March, 1916, has had a real influence, at any rate for the time, in arresting the decline of births, which has been a feature in the statistical records of all civilized countries for some years. It is of good omen to learn that this decline has not affected the United Kingdom to anything like the extent to which it has affected Germany and Hungary."

#### A NEW HIPPOCRATIC MANUSCRIPT.

In the issue of the *British Medical Journal* for November 17, 1917, is noted as follows the description of some recently discovered fragments in Greek of works belonging to those attributed to Hippocrates:

"Of two classical works attributed to celebrated medical authors, probably neither was really written by the assigned author. These are the *πρὸς Ἰβριανὸν* of the pseudo-Hippocrates and the pseudo-Galen's commentary upon the first seventeen chapters thereof extant in an Arabic version. The Hippocratic treatise is of far the higher importance because of its extreme antiquity, it having been alluded to by

Plato and numerous authors down to recent times, while the information which it affords of ancient pathological theories is useful. There is a Greek Codex of the work in the Bibliothèque Nationale; also a Latin version there and in the Ambrosian Library. Our reference to the Hebdomad is prompted by the fact that some fragments of the Greek recension were discovered recently, and these have been studied and assigned to the proper places in the Paris Greek text by Dr. von W. H. Roscher, of the University of Athens. Unfortunately, his book, 'Die Hippokratische Schrift von der Siebenzahl' is published at Paderborn, and so not at present available for scholars here. It is a curious thing that among 110 palimpsests, found in various libraries during the last century, from which some valuable portions of classical literature have been recovered, only one containing eight pages of the 'Mulomedicina' of Vegetius, which is in the St. Gall library, is of a medical character. Probably medical works were too useful for their parchments to be sold to the scribes to be cleaned and used over again for theological polemics, and sermons of the early fathers."

#### ORTHOPEDIC SURGERY IN WAR.

On January 2, 1918, Dr. Sir Robert Jones delivered before the Hunterian Society of London an address on "Orthopedic Surgery in War Time," of which the following brief summary from the *British Medical Journal* will serve to give an idea of the substance. Interest in this address is augmented by the large part which American orthopedic surgery is taking and is to take in the development of this new surgical department in relation to war.

"Sir Robert Jones contrasted preventive with corrective orthopedics. The former is the task of every surgeon in the field, and, in so far as it meets with success, it limits the necessity for the corrective practice of the trained orthopedic surgeon, part of whose work is the deliberate infliction of the original injury and the treatment of the case over again. He paid a tribute to the work of the surgeons in France, who, he said, had shown greater initiative and had made more progress than we had at home. But gunshot wounds of the femur remain one of the great tragedies of the war, both by reason of the mortality from shock and the frequent deformity and shortening; and the lecturer rightly devoted an important section of his address to an analysis of the causes of failure and the means desirable to effect a drastic improvement. Efficient fixation and continuity of treatment should be the two guiding principles in fractured femur, to be put into practice by what Sir Robert Jones called efficient 'team work,' including the trained nurse and orderly, as well as the surgeon; and the patient should not be lost sight of at any stage of his *via dolorosa* from

the regimental aid-post until the War Office finds him fit again for service or hands him over to the Ministry of Pensions to be made a self-supporting and independent citizen. Many of the suggestions outlined in the address have, we understand, already been adopted at the front, and there are few more striking object lessons of the war than the orthopedic team work, in organizing which Sir Robert Jones has had so large a share."

#### A BRITISH TRIBUTE TO DR. JANEWAY.

In a recent issue of the JOURNAL we published a brief obituary notice of the late Dr. Theodore C. Janeway, of Baltimore. The following more extended sketch from the *British Medical Journal* deserves republication as evidence of the personal and professional esteem in which Dr. Janeway was held by his British colleagues:

"Professor Janeway was about forty-five years of age, and was the son of Dr. Edward G. Janeway, a distinguished consultant physician of New York City, who died about ten years ago, and was one of the leaders of the medical profession in the United States. After taking his degree at Yale University, he studied medicine and graduated from the College of Physicians and Surgeons in New York. He became a teacher almost from the day of his graduation, and at various times was connected with the leading New York hospitals, including Bellevue, St. Luke's, and the Presbyterian. On the retirement of Dr. Walter James he was appointed to the Chair of Medicine at Columbia University, New York. Four years ago, when a liberal grant from the Rockefeller Foundation made it possible for the trustees of the Johns Hopkins University, Baltimore, to place the Chairs of Medicine, Surgery, and Pediatrics on a whole-time basis, Professor Janeway was called to occupy the Chair in Medicine in that university, a chair previously held by Sir William Osler and Professor L. F. Barker, and which he occupied at the time of his death. This decision on the part of the trustees of that institution initiated a new departure in medical education in the English-speaking world.

Professor Janeway was an enthusiastic investigator, and availed himself of the clinical material and laboratories in the various institutions he was successively connected with for carrying out the researches he became interested in. He was one of the pioneers in the study of the effect of disease on arterial blood pressure, and about ten years ago published an excellent volume on the subject. At the time of his death he was actively engaged on a revision of this work. His contributions to medical literature have been very numerous and important. He has published noteworthy papers on diabetes mellitus, dealing with the metabolism and treatment of the disease. In recent years he had been especially interested in the study of ne-

phritis, utilizing the newer methods of studying this disease, such as Ambard's coefficient, the estimation of the non-protein nitrogen in the blood, and the various forms of functional renal tests, as a means of determining the prognosis and of ascertaining the best dietetic treatment in each individual case. He published several papers on this important subject. As a member of the Board of Trustees of the Rockefeller Institute in New York, he was keenly interested in the investigations carried on there by Cole and his associates concerning the various strains of the pneumococcus and the specific serum therapy of pneumonia—the disease from which he himself unfortunately succumbed.

Professor Janeway was also to the front in the popular fight against tuberculosis, and was ever ready to give his assistance in the campaign being waged against this devastating disease. His interest in this subject was further manifested by the part he took in the establishment of the Post-graduate School for the Study of Tuberculosis at Saranac Lake, New York, in memory of Dr. Trudeau, and by the fact that for the last three years he was president of the Laennec Society at the Johns Hopkins Hospital, Baltimore, a society organized there by Sir William Osler some fifteen years ago for the study of tuberculosis. Before this society nearly all the leading students of tuberculosis in the United States have presented papers.

When the United States declared war on Germany in April, 1917, Professor Janeway was called into active service in the Army Medical Corps, of which he had been for several years a member. Until a week before the Johns Hopkins University Unit sailed for France, in the latter part of June, 1917, it was his intention to go with the unit as chief of the medical division. His friends insisted, however, that he could probably serve his country better by remaining in the United States as head of the department of medicine in the Johns Hopkins University and in an advisory capacity to the Government. With considerable reluctance he was persuaded to remain, and since then, with the rank of major, he has occupied a desk in the office of Surgeon-General Gorgas at Washington, where his scientific training and organizing ability have been of the greatest service to his country.

As a bedside teacher and clinical lecturer, Professor Janeway had few equals. He was a fluent speaker and a clear thinker, and had a remarkable memory for recalling cases previously observed in order to elucidate phases of the particular subject under discussion. He possessed the admiration and devotion of all his friends and *confrères* in the University. In his death the Johns Hopkins University sustains a severe loss, especially at a time when a new departure in medical education was being given its first trial, and when every other important medical school in the United States was watching the experiment.

Professor Janeway's home life was charming. His was a devoted family. His house was a rendezvous for the younger medical men and for the senior medical students. All busy men usually find time for one or more hobbies. Professor Janeway was very fond of amateur photography and of music. For many years he had been accustomed to spend his vacations with his family at a delightful summer colony in the Adirondack Mountains in Essex County, New York, where he was able to indulge himself in his chief exercise, that of long walks. Those who knew him well mourn a sincere and devoted friend, and our sympathies go out to every member of his family in their sorrow.

Sir William Osler writes:

'The death of this distinguished teacher from pneumonia, at the early age of forty-five, is a severe loss to scientific medicine, and, following so soon upon that of Dr. Mall, is another hard blow to the Johns Hopkins Medical School. Dr. Theodore Janeway's life justified a singularly fortunate birth and breeding. The son of an unusually able physician, Dr. Edward G. Janeway—a strong-fibered, honest man, who rose to the first rank in the United States—nature and nurture combined to make his path easy. Connected at first with the New York University, in 1909 he became professor of medicine at Columbia, and began a successful reorganization of the methods of teaching and investigation. He collected able young assistants from different parts of the country, and it is not too much to say that by precept and example he put a new spirit into clinical medicine in New York. His "Clinical Study of Blood Pressure," published in 1905, admirably illustrated the application of physiological methods to bedside problems. With a first-class training and great energy, he soon became recognized as the leader of the younger group of physiological clinicians who have been quietly but surely upbuilding and transforming American medicine. When, in 1914, the Johns Hopkins Medical School accepted the Rockefeller bequest on condition that a certain number of the clinical professors should be whole-time, Dr. Janeway was naturally the choice in medicine. He entered upon a novel and untried position, but judgment is strongly in favor of the experiment as carried out by Dr. Janeway. With ample private means, rare constructive ability, and a keen capacity for research, there were combined in him all the elements for a successful whole-time teacher. He upheld and extended the ambition of the clinic to be not alone a school to train men in the knowledge of disease, but in the methods of dealing with its unsolved problems. The published work of the past three years shows that he and his pupils were engaged in the best type of clinical research. When the United States declared war he was among the first called to cooperate with Surgeon-General Gorgas in reorganizing the medical department of a great civilian army. He became deeply in-

terested in getting the young American physicians trained to meet the many novel conditions of practice in France, and only a few weeks ago the writer had a long letter from him full of plans and details. His death is a sad loss to us all—the cruelly premature death of a man who has a great work in hand.'"

#### LETTSON AND THE LONDON MEDICAL SOCIETY.

In the issue of the *British Medical Journal* for January 12, 1918, appears a valuable and exhaustive account by Dr. Sir St. Clair Thompson, of John Coakley Lettson and the foundation of the medical society which bears his name. This was delivered as a presidential address before the Medical Society of London in October, 1917, and the following representative extracts from it may serve as a less complete sketch of the medical life of London in the late eighteenth and early nineteenth centuries and of one of its more distinguished figures:

"John Coakley Lettson was one of twins, and was born in 1744 and died in 1815. The following sketch of his career may be more interesting if we recollect that he had no great social or family influence, that he never attended any noted school or had a regular university course, that he was not a Fellow of the College of Physicians, that he never held any Court appointment, and was not on the staff of any well-known London hospital. He may have had his good turns of fortune, but he had few advantages in his birth, education, and upbringing, and the success of his evidently healthful, happy, vigorous and useful career was due almost entirely to his own application, his keenness in his profession, his love of humanity, the breadth of his interests, his zest for life, and his happy disposition.

He was born in the West Indies and may have had some native blood in his veins, for he refers in a letter to the suggestion, without denying it, that he had the 'volatility of the Creole, with the plodding industry of the German.' He had no sister, and as he was sent to England at the early age of six we cannot claim much home influence in forming his character. He never saw his father again. He was sent to a small school of 40 or 60 boys at Penketh, in Lancashire, kept by a member of the Society of Friends, for he belonged to a Quaker family, and he lies buried in the Friends' Burial Ground, Little Coleman Street, Bunhill Row. While at this school he came under the influence of the well-known Quaker minister, Samuel Fothergill, of Warrington, the younger brother of the celebrated Dr. John Fothergill, of London, and from this more or less accidental acquaintance we can trace an influence on the career of Lettson and the origin of our own Fothergillian gold medal. At this

small day-school Lettsom remained only until the age of fourteen, and during this time, if he learned little Latin and less Greek, he had the much greater advantage of acquiring a knowledge and love of nature by being allowed and encouraged to join in the usual country sports of schoolboys of a former generation. Following the hounds on foot, sometimes assisted by pole-jumping, bathing and swimming, the use of bow and arrow, fishing, sliding, and long days spent in nutting or bird-nesting, not only helped to form a vigorous and active constitution, but gave a keenness in observation, a resourcefulness in emergencies, a quickness of eye, and a love of fellowship with nature, which the present generation runs the risk of losing, with its exaggeration of formal games confined within monotonous playing grounds.

Lettsom's education finished in his fourteenth year. His father was dead, and his mother in the far West Indies had married again. He was then sent to Liverpool for a business training, but at the end of a year circumstances arose which resulted in his being apprenticed as a pupil to Abraham Sutcliff, a surgeon and apothecary at Settle, in Yorkshire. If the school in Lancashire helped in the promotion of Lettsom's physical vigor and powers of observation, it is to his five years' residence in Yorkshire that we may ascribe the opportunity for the acquisition of a love of learning, much book lore, habits of work, training of memory, and the faculty of managing patients. His master, Sutcliff, was an excellent classical scholar, though quite self-taught, and under his guidance he made such progress in Latin that he was able to study in that language the works of Boerhaave, Winslow, and others. We should remember that in the eighteenth century Latin was still a living language, for Lettsom, like all physicians of the time, could follow lectures in it at foreign universities, discuss medical matters with colleagues of various countries in Latin and, by its medium, submit himself for a diploma at Leyden. He records that he 'attended the lectures of Innes, Sinclair, Plummer, and Rutherford in that language (*i.e.*, Latin), in which I was pretty well qualified to maintain a conversation or dispute.' With a party of friends, he shared the expense of procuring a French master from London, so that he not only could read the language with ease, but could speak and write it fairly well.

At the end of his five years in Settle, and at the age of twenty-two, Lettsom, in 1766, started for London, where he was without a relation and did not know a friend. His subsequent career is so well epitomized in a letter he wrote twenty-five years later that I cannot do better than transcribe it:

'London, December 31st, 1791.

Medicine is rather a practical than a brilliant art and depends upon study as much as genius. Poverty led me to physic. I was placed with a country apothecary, whose fee was moderate. I

had no particular predilection for medicine. I never possessed genius; my memory was bad; I made dictionaries and tables of my own invention; to assist memory, I formed indexes of what I read, and by industry acquired something. I came to London, and saw Dr. (John) Fothergill, my ambition was inflamed, and I dared to say, London shall be my theatre; but having no more money than to carry me through the hospitals, I could not attend many lectures, and upon this depended my improvement; for instead of hearing and learning of lectures, I was compelled to learn at the bed of sickness. Here I saw nature, and learnt my art without the leading-strings of professors. I acquired an early habit of behaving with kindness to the sick, and having known want, I knew how to sympathize with distress. After two years in an hospital, I went to the West Indies to get assistance to bring me upon the theatre I now act. Six months abroad enabled me to visit London, Edinburgh, and Leyden, and ultimately to sit down in the first city; and I know not why any other person, with £500, may not do the same.

Yours respectfully,

J. C. LETTSOM.'

This is a good letter with a brave ring in it, revealing much of our Founder's character, both by what it states, and also by what it omits. Lettsom does not mention in this letter that though he returned, for the first and only time in his life, to his native island to get assistance, his first action on arrival in the West Indies was to free the fifty slaves he had inherited. Apart from these slaves, and a small portion of land, he was not possessed of £50 in the world.

The 'assistance' which he went to seek on the Island of Tortola he himself created by starting practice there at the age of twenty-three, and in the short space of five months he amassed the surprising sum of £2000. He must surely have had a keen sense of the business side of his profession if at this age, as a first start, and in an insignificant West Indian Island, he could earn from his profession at the rate of £4800 per annum. His income later on was equally astonishing.

But his large practice and all these multifarious occupations did not exhaust Lettsom's boundless activity. His various interests and his general culture, added to his hospitable and cheerful character, brought him into contact with many of the most celebrated people of his generation.

Lettsom was associated with some of the most celebrated men of his time, an age rich in historical personalities. We have seen how he was frequently received by King George III; he records his impressions of hearing Pitt and Fox speak in the House of Commons; he corresponded with 'General Washington, of America,' Dr. Rush of Philadelphia, and with Benja-

min Franklin; Sir Charles Linné (Linnaeus) wrote to him in Latin; he studied under Dr. Aken-side (the author of the 'Pleasures of Imagination,' whom he found 'the most supercilious and unfeeling physician he had hitherto known'); amongst the founders of the Royal Humane Society (1774 he came in contact with Dr. Oliver Goldsmith, Dr. Heberden, and William Fox; he interrogated George Bidder, the remarkable eight-year-old boy who lived in St. Bartholomew Close, who could not write and scarcely read, yet made long arithmetical calculations (May 17th, 1815); he came across Joanna Southcott, and attended Lady Huntingdon; he met Braham at musical parties, and he dined with Wilkes, Boswell, and Lee the American; he knew the celebrated Lady Hamilton and was very grateful to her for her kindness to his son when visiting Naples; Sir William Hamilton, 'loaded with years and honors,' visited him at Grove Hill; it is not clear if he ever met Lord Nelson, but the great sailor expressed his 'respect and admiration' over several of the letters written by Lettson; amongst his intimate friends were Edward Jenner, of Berkeley, in Gloucestershire, and Babington, who nearly invented the laryngoscope. Boswell, whose verses I have already quoted, was a frequent visitor at Grove Hill, and Dr. Samuel Johnson must often have called in there on his way to tea with Mrs. Thrale at Streatham.

As I have said, Lettson's good income, which he spent so generously, was earned by constant hard work. As early as the age of 23 he records that he seldom prescribed for fewer than 50, and often twice as many, patients before breakfast. When he was 38 he writes that, 'sometimes for the space of a week, I cannot command 20 minutes' leisure in my own house.' A year later he writes, 'since 1769, when I first settled in London, I have not taken one-half day's relaxation, and I cannot get to Grove Hill above once a fortnight.' In 1791 (he was then aged 47), he observes, 'during the last 19 years not one holiday have I taken, and this will probably be the last of my life, unless sickness compels me to seek leisure.' The 'holiday' here referred to consisted in travelling by coach to Margate, spending two hours on important business there, and returning the same day—144 miles in the day and night. In another letter he records that his practice had not suffered him to sleep in his own bed for 13 following nights, and he evidently spent much, not only of his days, but of his nights, in his travelling coach, for one correspondent reproached him for 'converting his carriage into a dormitory and a suttlings-booth.' His carriage served him for still another purpose; he was a voluminous writer, and yet nearly all his letter-writing was done in his carriage. He used up three pairs of horses daily. When we recall the condition of the roads in the eighteenth century, the pace at which his coach must sometimes have travelled, and the non-invention of stylographic

pens, it is astonishing to glance at the number, length, and completeness of the letters which have been preserved, and to read, when he was 60 years of age, that 'my professional duties incessantly occupy me, and compel me to write all my essays in my carriage.'

If all these strenuous days and nights had been devoted solely to his extensive practice, we should not be surprised. But his interests and self-imposed duties were spread over a large variety of subjects, and he rendered important public services as a philanthropist. In 1770 he founded the General Dispensary in Aldersgate Street (the first of its kind in London); he established the Sea-Bathing Infirmary at Margate; he was one of the founders of our own Society; he was an active member and a lecturer of the Philosophical Society; he was one of the founders of the Royal Humane Society; he was a friend and supporter of Edward Jenner and an active supporter of the recently introduced vaccination for smallpox; the reform of prisons was responsible for his friendship and admiration for John Howard, and the amelioration of the condition of the poor and helpless was his constant care. He was the first man to introduce into England the mangel wurzel, as is jestingly referred to in the verses I have quoted, and he always kept up his interest in botany, agriculture, and fossils. He wrote a book called the 'Naturalist's Companion,' which ran through three editions. He pointed out the use of birds—even crows—and of moles in Nature's economy, and pleaded for their preservation. He anticipated our cult of the open window and the researches of Leonard Hill when he wrote his 'Essay on the Effects of Heated and Stagnant Air.'

Soup-kitchens met with his entire approval; the manner of preparing the various kinds of soups is minutely noted in his pamphlet, and the best receipts are given for various articles of diet. Alas, that, after some 125 years, our soups should still be execrable and our cuisine a by-word amongst the nations! In 1798 he published a tract entitled 'Hints Respecting the Effects of Hard Drinking.' In 1795 he wrote a tract on 'Hints Respecting the Chlorosis of Boarding Schools,' with advice as to games, diet, clothes, cleanliness, etc. He was greatly interested in the history of medicine. The *Kadaververwertungsanstalt* in Germany, about which there has recently been some commotion in our press, would appear, from a letter of Lettson's, to have been anticipated by 124 years. In 1793 he writes: 'A friend of mine has lately discovered the art of changing human flesh into spermaceti candles. This is not a fable. He means to light up the large room of the Royal Society with the leg of a man. I advised him to go to the swamps of Dunkirk, where he might find materials sufficient to supersede all the tallow of Russia. If this project succeed we shall refine on the custom of the ancients in burning their dead. We may burn our friends over a

supper or pipe. This scheme may puzzle the Materialists about collecting the remains against the last day.

Certainly his constant 'succession of employments,' his enormous practice by day and by night, his long coach journeys, his multifarious social engagements, his hospitable entertainments, the care of his garden, his voluminous correspondence, and his extensive publications fill one with wonder. When we recollect that this full life was lived without our modern aids to despatch in the way of secretaries and stenographers, telephones and telegrams, railways and motor cars, one is the more astonished.

This being Lettson's personal appearance, what was there in his manner of work to explain all he got through? His biographer gives as the following explanation: 'To a naturally good capacity he united the greatest degree of perseverance. This enabled him to surmount various obstacles that in the course of his practice naturally occurred. The want of a good memory obliged him to be methodical, and by great, and it may be said a truly surprising, regularity, he so economized his time as to be capable of engaging in the immense variety of occupations alluded to.' These notes to help his defective memory are elsewhere referred to as amounting to no less than 40,000. Lettson, although a keen and independent observer, a ready writer, and a frequenter of our Medical Society, never made any striking contribution to medical science. He had no great hospital appointment; he had no pupils to spread his fame; and he had no position at the Court or in the College of Physicians to give him prestige. His success in practice must have been due to his own personality, his sincerity, his great industry, and his direct influence upon his patients. It is abundantly evident from his letters that he enjoyed not only the exercise of his art but the opportunity it gave his broad humanity to be a real comforter and friend to his patients. He evidently had the happy knack of getting on easy terms with his patients; he had Mirabeau's '*don terrible de la familiarité*,' for he writes, 'I would rather be familiarly happy than acquire distant veneration.'

It was possibly this equable temperament, and this placidity in the presence of disaster, which led to the well-known lampoon:

'When any sick to me apply,  
I physicks, bleeds, & sweats 'em;  
If after that they choose to die,  
What's that to me,

I LETTSON.'

His pliability may have led to his being caricatured in the *Westminster Magazine* of September, 1782, under the title of 'Dr. Wriggle or the art of rising in physie.' He philosophically refers to this as 'Very complimentary.'

As a fervent disciple of his friend Edward Jenner, he warmly espoused the cause of vacci-

nation at a time when it was still abused and opposed, with the result that 'in Germany vaccination had nearly extinguished the smallpox' and 'was more general in every part of Europe than in England.' Evidently this British discovery of medicine in the eighteenth century met with the same reception in its native land as did Lister's in surgery in the nineteenth century. His support of the Humane Society, his enthusiasm for the improvement of prisons, his divagations into the work of the Philosophical Society, certainly show no self-seeking, did not improve his professional status, encountered strong opposition, and required much courage. His crusade for the mangel wurzel, as is seen in Boswell's verses, only exposed him to ridicule. He did not flinch at opposing fashion, or fear to show that he had a frugal mind, when he animadverted upon the practice of wearing the hair powdered, as unnecessarily consuming a vast quantity of flour. He undertook the ungrateful task of exposing quackery. Courage could never have failed him, and it must be due to his *suaviter in modo* that he was able to do so much and yet preserve his position and his friends. An instance of this courage in private life is shown by the charming, delicate, and feeling letter he wrote to his friend Boswell, deploring that 'in scenes of pleasure which I have cordially enjoyed... I have observed, not merely a too frequent use of the glass, but that mixture of liquors which, as a professional man, I can add, tends to injure the best human fabric.' This required courage as well as tact, and was done in such an evidently sincere and friendly way that we are glad to see that Boswell in his reply wrote: 'I am not cheerful at present; the visible wearing away of Sir Joshua Reynolds depresses me much; and, besides, I have not been so attentive as I should be to your most friendly recommendations as to regimen. *Spero meliora.*'

Lettson's vitality must have been enormous. Although as early as his thirty-ninth year he talks of 'the buffetings of his slender habit and weak constitution,' yet in his sixty-sixth year he writes, 'I am as alert as in the days of my youth.' Still he is sufficiently anxious at times about his health to write, 'I fancy immediately upon illness that I am going to the Majority; but,' he at once adds, 'feeling some little comfort in having done something in the world, which persuades me that I shall meet my predecessors with pleasure, I soon sleep my distempers off.' He must have been a sound sleeper, for, as I have already narrated, he often did not have 20 minutes' leisure in a week; he passed 19 years in London without a single holiday; and from the age of 23 he was 'in perpetual exertion' in his profession.

To such a temperament as Lettson's death came as he would have wished it—swiftly and mercifully. On Oct. 22, 1815—Waterloo year—he assisted at a post-mortem examination, remaining for two hours in a cold room. Next

day he felt chilly and unwell. On the 25th he wrote a note saying he had had a rigor, followed by a dreadful night, but that he was up and intent on seeing a few patients. He added, 'For the last 27 years I have not been confined by illness.' Two days later he was urged to see Dr. Babington, but answered 'that he should be better in a few days, and that he wished for no one to attend him.' His dauntless spirit, in spite of the entreaties of his friends, took him out to see a poor patient in Whitecross Street, but on his return he had to be lifted from his carriage, and that evening took to his bed. Even here, and in spite of excruciating pain, which prevented him from turning without assistance, he was eager to get reports on his patients and to make arrangements to attend the approaching anniversary of the Philosophical Society. On the following day, Oct. 30, he appeared improved, but died on November 1, 1815, only five days after he had been out to visit his last patient.

I have completed this sketch of our Founder's life before describing when and how our Medical Society came into existence. Lettson's multifarious writings were frequently issued in the form of short pamphlets to which he gave the title of 'Hints.' On June 23rd, 1773, he issued a pamphlet entitled 'Hints on the Establishment of a Medical Society of London.' The vigor with which he followed up design by action is shown by the fact that the Society was inaugurated that same year, and the completeness with which he planned his scheme is demonstrated by observing that the 'statutes' he drew up in 24 pages are in such order and detail that there will be found but trifling points of difference when we compare them with our present rules of 145 years later. After an introduction, in which he says that societies 'excite a generous ardor in liberal minds and raise even envy itself into useful emulation' and that 'the principal part of our knowledge must be ever derived from comparing our observations with those of others,' he points out the advantages of discussion, the usefulness of honorary rewards, and the virtue of a medical library. We still follow Lettson's original design in numerous details of the Society's regular existence. Naturally, having received the distinction of following the illustrious Lettson in this honorable chair, I turned with particular interest to inform myself of his directions to the Presidents of all time. I note that the President 'shall regulate all debates, and prevent any from being prosecuted upon trivial subjects,' and that 'all members shall pay implicit obedience to the President in the execution of his office!' The only one of Lettson's statutes which we appear to have quite neglected is No. 4, Chapter IV, where it is enacted that 'the President, whilst in the chair, shall be covered, except when addressing himself to the whole Society'!

The early meetings of the Society were held in Lettson's house, in Sambrook Court, Basinghall Street, and its first home was in Crane Court, Fleet Street. Here the Medical Society remained until 1788, when Lettson presented it with the freehold of a house in Bolt Court, Fleet Street, where it was established until 1850. The house was valued at £2500. It is rare for benefactors to make such handsome gifts during their lifetime. The shifting of the centre of medical life more westward led to our then taking a house in George Street, Hanover Square, and we were finally established in our present house in 1871. The fine picture in this room shows a group of the Founders of the Society, the central figure being Lettson standing up in the act of presenting the deeds of our Bolt Court house to the President. This oil-painting by Samuel Medley is a valued possession of our Society. Medley was the better able to execute this as he was the associate and intimate companion of Lettson, Sims, Babington, Blair, Hooper, and Jenner. The painting contains 22 life-like portraits of our Founders, most of them being the leading medical men of the period. It is doubtful if there exists another medical picture containing so many actual portraits of well-known individuals. Edward Jenner is represented standing close to the left shoulder of the President. It will be noticed that his figure is smaller than the others and somewhat out of perspective. This is because Jenner was not one of the original Founders and did not appear in the picture as originally painted. His portrait, in consideration of his celebrity, was painted in later. It will be noticed that the President is seated, and following Lettson's 'Hints,' he remains covered and is wearing his cocked hat.

The Fothergillian medal, 'in gold of 10 guineas value,' was founded by Lettson in a letter addressed to the Fellows of the Society on May 25th, 1784. In 1791 Lettson himself won the prize essay for the Fothergillian gold medal. He delivered the annual oration in 1778, choosing as a subject 'History of the Origin of Medicine.' He said he had to deliver this oration at short notice, but was able to effect it by the facility with which he could refer to his 40,000 notes! How did he manage it in those days before card-filing systems were invented? On March 8th, 1804, he again delivered the annual oration, 'On the Origin of Vaccine Inoculation, with a Biographical Account of Dr. Jenner,' to whom the Fothergillian gold medal was then presented.

In 1850 the Society perpetuated the name of our founder by establishing the Lettsonian lectures.

The published records of the Society's work appeared under the title of 'Memoirs' or 'Proceedings,' and, later on, under the present one of 'Transactions.' We find they exist from 1787 to 1805, and from 1810 to 1817, but between these two periods there is a hiatus. Sub-

sequently there appeared only one volume in 1846 and another in 1861. The publication of the 'Transactions' was resumed in 1872 and has continued annually ever since.

As our 'Transactions' covered the period of the Peninsular and Waterloo campaigns, I looked through them to see in what way they reflected the military medicine and surgery of the period. I confess to considerable surprise in not finding a single communication reflecting the wars in which our country was then engaged. This is striking when we remember that in the session of 1915-16 every single communication made to the Society was on a war subject, with the exception of the annual oration by myself on 'Shakespeare and Medicine.' But it is also noticeable that the Boer War is reflected in our 'Transactions' by one solitary communication on 'Typhoid Fever.' This shows that our previous wars have been of the nation's life a thing apart—the present world war embraces our whole existence.

I had occasion last year in 'Shakespeare and Medicine' to point out that our Society possesses the only record of the nature of the death of our national poet. It is curious that we also possess a record of the death wound of our national hero, Nelson. The Minute Book of the Medical Society for Dec. 23rd, 1815, contains the following: 'A letter was read by Dr. Gillespie from the surgeon on board the *Victory*, who dissected the wound of the late Admiral Nelson, describing the progress of the musket ball. It passed through the left shoulder, penetrating one lobe of the lung, and, after perforating the vertebrae, was lodged in the surrounding muscles.'

The rest of the chronicles of the Medical Society, and all that it has done, are they not written in the handsome volumes of the 'Transactions'—a storehouse of interest and instruction to all our members?

In this sketch of our Founder I hope I have succeeded in strengthening the loyalty of all Fellows to the oldest Medical Society in London, and in conveying to your minds the attractive picture of the Founder which I have received from a perusal of his life and letters. It is well summarized by his biographer, who describes Dr. John Coakley Lettsom as 'good, humane, benevolent. We have lost in him the sensible, firm, and upright friend, the able, honest, and experienced physician, and the pleasing, instructive companion of a social hour.' Our Society need seek for no better exemplar."

#### SOCIETY NOTICE.

WORCESTER DISTRICT MEDICAL SOCIETY.—The next regular meeting will be held Wednesday, February 13, at 4.15 p.m., in G. A. R. Hall, Worcester. Program:

1. Experiences of an American Surgeon in a British Base Hospital. By Major Kendall Emerson.
2. The Halifax Disaster. Illustrated by Lantern Slides. By Major Peter O. Shea.

ERNEST L. HUNT, Secretary.

## Correspondence.

### AMERICAN DOCTORS IN ENGLAND.

Milton, Mass., Jan. 9, 1918.

My Editor:—

The following word has just been received from one of the large cities in Essex County, England, a region which has received many air raids and where a large contingent of men is constantly in training. It gives a glimpse of what manner of men we have given to the hospital service and how warmly they are welcomed and appreciated.

"It seems so fine that England and America are allies, now, both working for the same great cause. We were all so rejoiced when America joined in the war and our hopes are centered in that splendid Old Glory."

"My sister, Mrs. G., is on our local Food Control Committee and finds it interesting, if very hard, work. Her special province is inspecting potatoes. She has been meeting some of the American doctors who are stationed here at the military hospital and she has invited them to her house. Everyone is so pleased with these doctors and they are everywhere welcomed. Everyone notices and comments upon their courteous manners not only to outsiders, but to the non-commissioned officers and privates in the ranks, so very kind, friendly and entirely informal. Some of the R.M.C.A. have told me how pleasant they were to work under, so alert and practical, treat people as on an equality and have absolutely no 'side' or 'swank' about them. My sister is struck with their attitude toward women, and judges by them that all American women receive both courtesy and consideration."

"At my sister's suggestion, the Mayor and Mayoress paid the American doctors an official visit of welcome at the hospital. It was a jolly visit, a good tea being served in the doctors' little sitting room which was full to overflowing. They had started decorating for Thanksgiving Day, and there were bits of holly hung on walls around the bare walls. The Mayor then invited all the American doctors to a tea at the Town Hall on Thanksgiving Day, specially to be held in their honor,—the first official notice ever taken of the great American day. The Aldermen and their wives were asked to meet them, and the regalia and civic treasures were laid out for their inspection. (A magnificent building, rich in splendid paintings and historical relics.) The doctors had a hearty reception. They were taken out to see the City Lions, especially the Castle, with its ancient dungeons, the old Priory and the beautiful Abbey gateway. As they moved up the street they caught sight of our American flag father had hung from the window. Off went their hats and they looked so pleased. Afterwards, my sister had them to late supper and the table was decorated with my own tiny American flags which you sent over. So you see how much we think of your fine medical men over here."

MARY FIFIELD KING.

#### RECENT DEATHS.

DR. EDWARD PAGE, the last surviving member of the first dental class to graduate from Harvard University, died in January. Dr. Page was born at Groton, Mass., Dec. 4, 1826. He was graduated from Harvard Medical School, and was one of the organizers and first president of the Harvard Dental Alumni Association and treasurer from 1874 to 1880. He was treasurer of the Massachusetts Dental Society from 1869 to 1897.

CHARLES PARKER LYMAN, M.D., died at Los Angeles, Calif., on February 2. Dr. Lyman was born in 1847 and for fifteen years was Dean of the Harvard School of Veterinary Medicine at Cambridge, Mass. He retired from that position in 1902. Dr. Lyman is survived by his widow, a daughter and a son, Dr. Richard P. Lyman of Lansing, Mich.